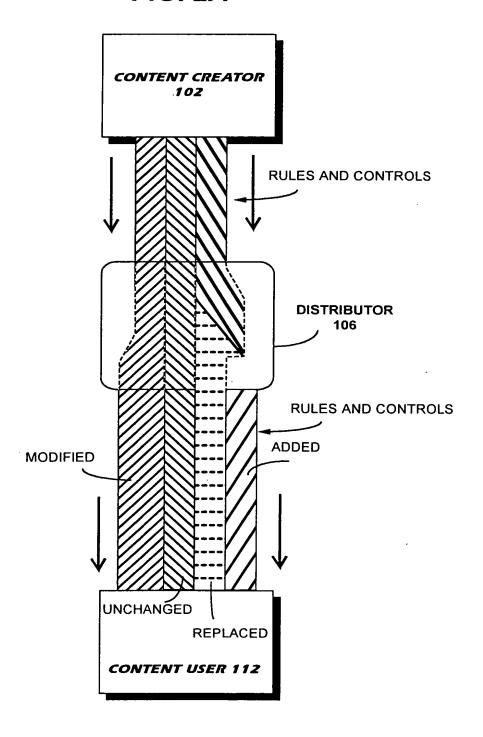
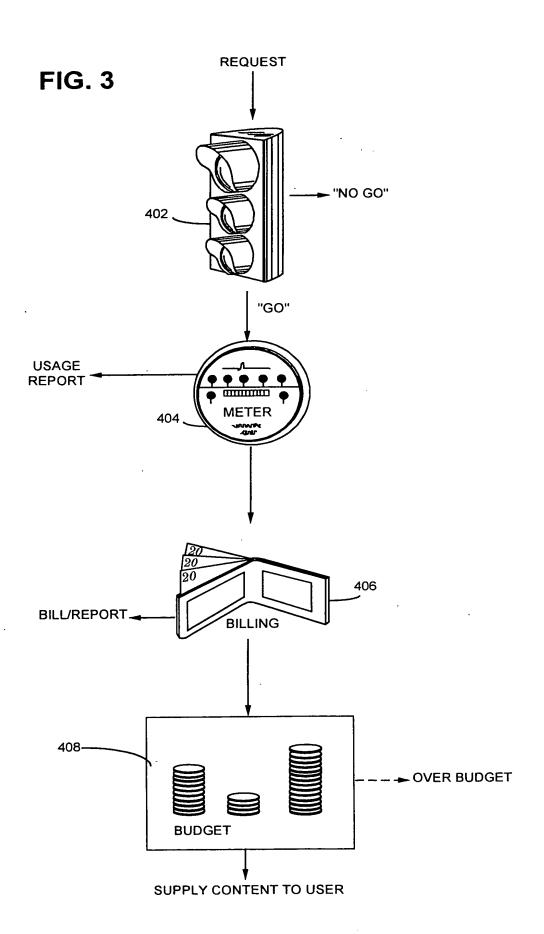


FIG. 2 100 102 **VDE CONTENT** CREATOR 122 -108 RULES & CONTROLS 104 VDE RIGHTS DISTRIBUTOR CONTENT REPORTS
AND
PAYMENTS ELECTRONIC CONTENT HIGHWAY 1₁₀₆ 110 -RULES & **CONTROLS** 112 118 **BILLS VDE CONTENT USER PAYMENTS** REPORTS 120 116 114 **FINANCIAL** CLEARINGHOUSE AND VDE ADMINISTRATOR



FIG. 2A





7

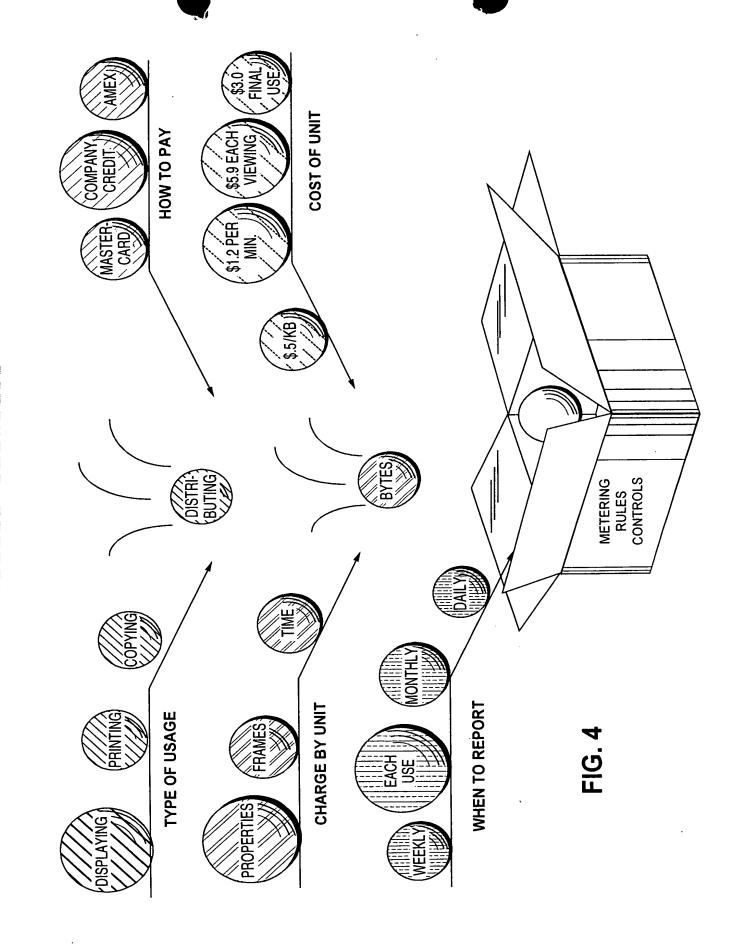
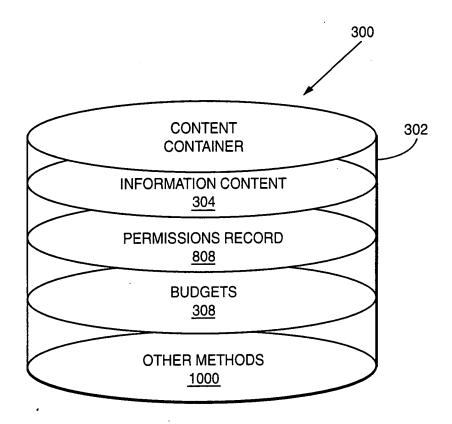
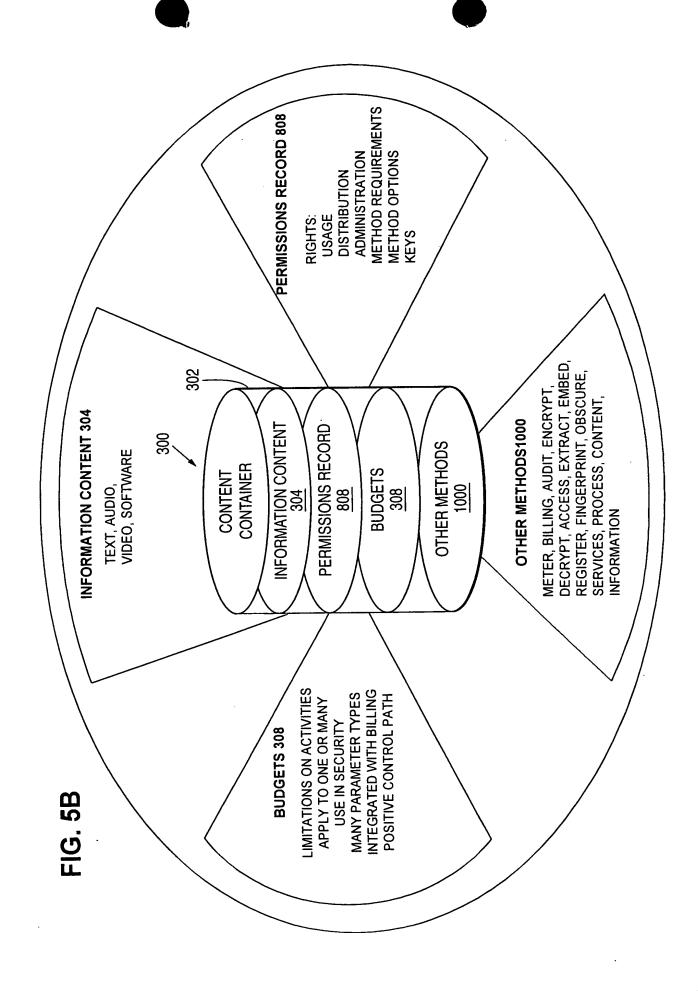
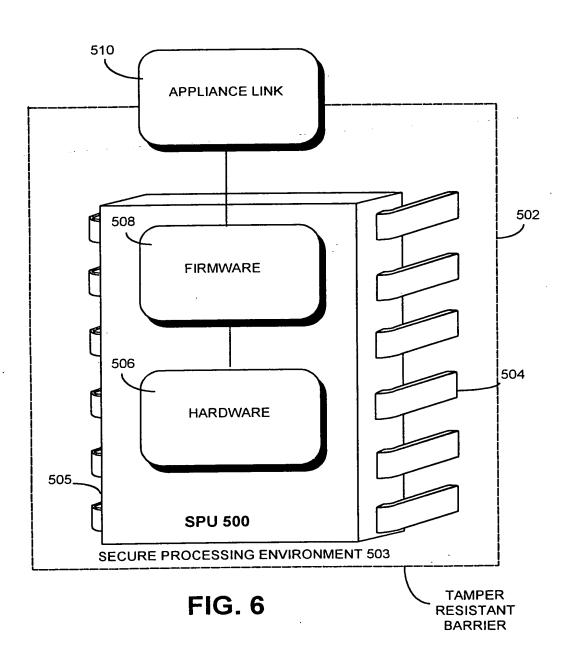




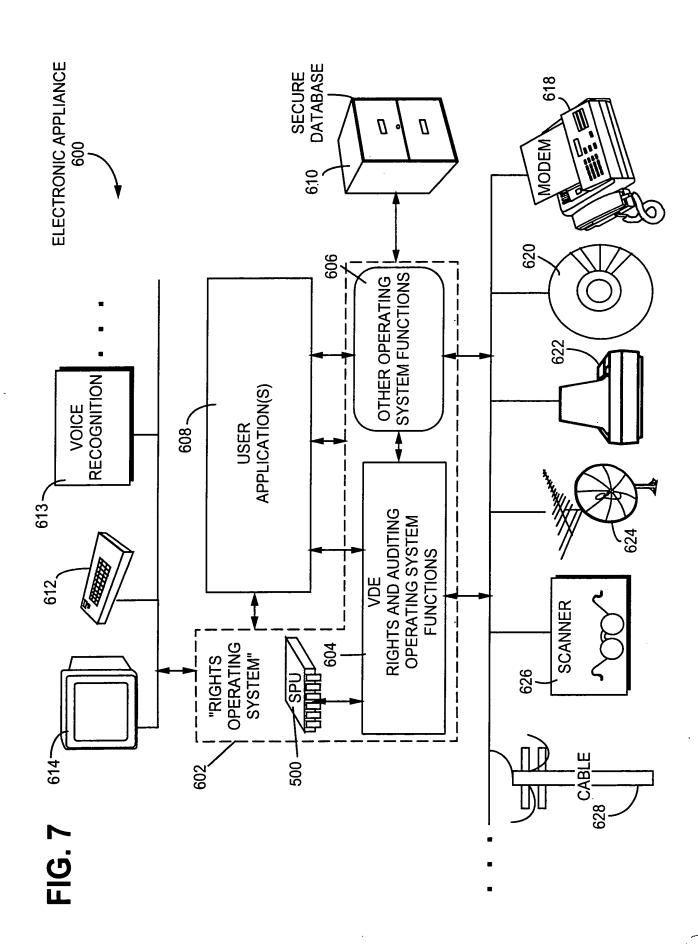
FIG. 5A

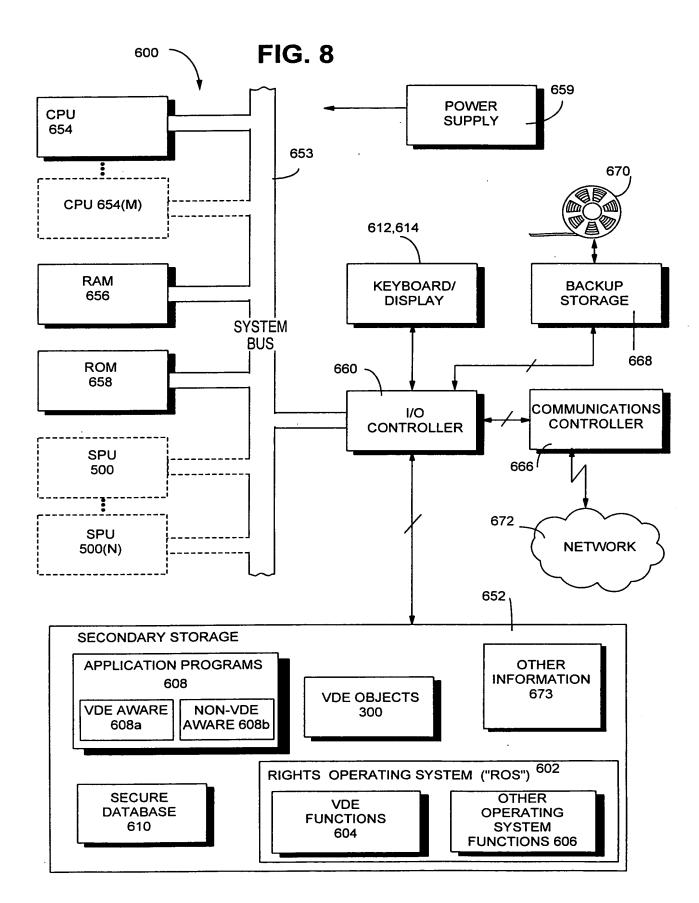




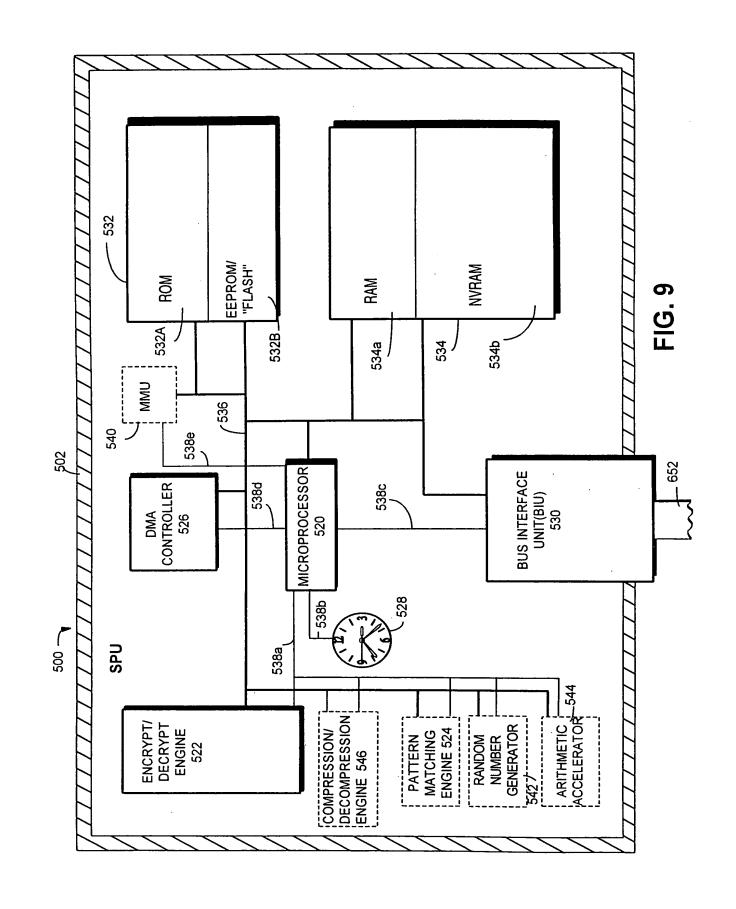


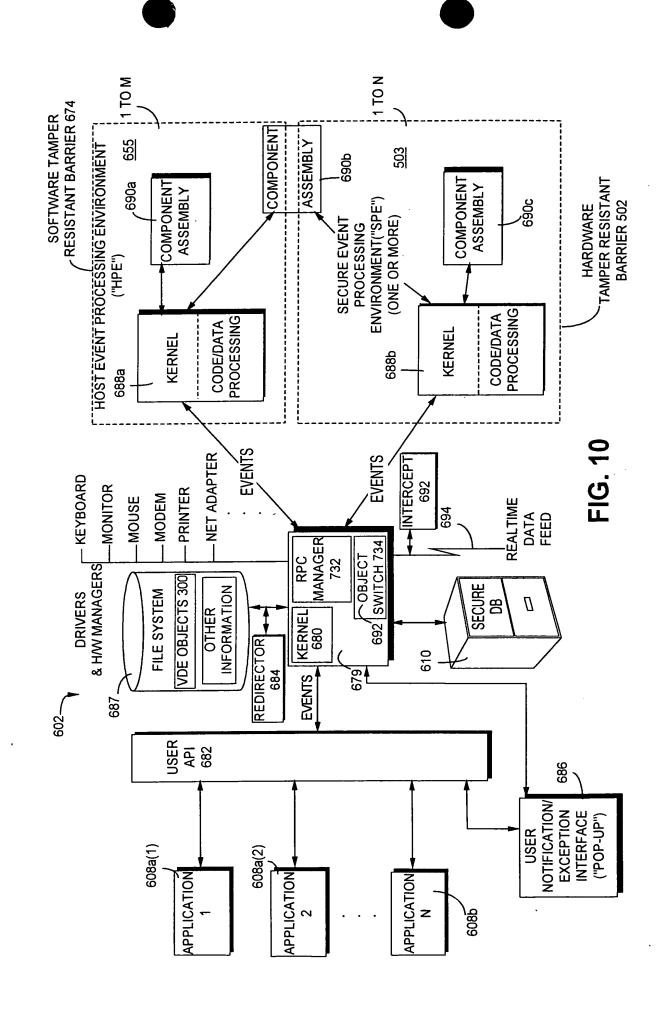


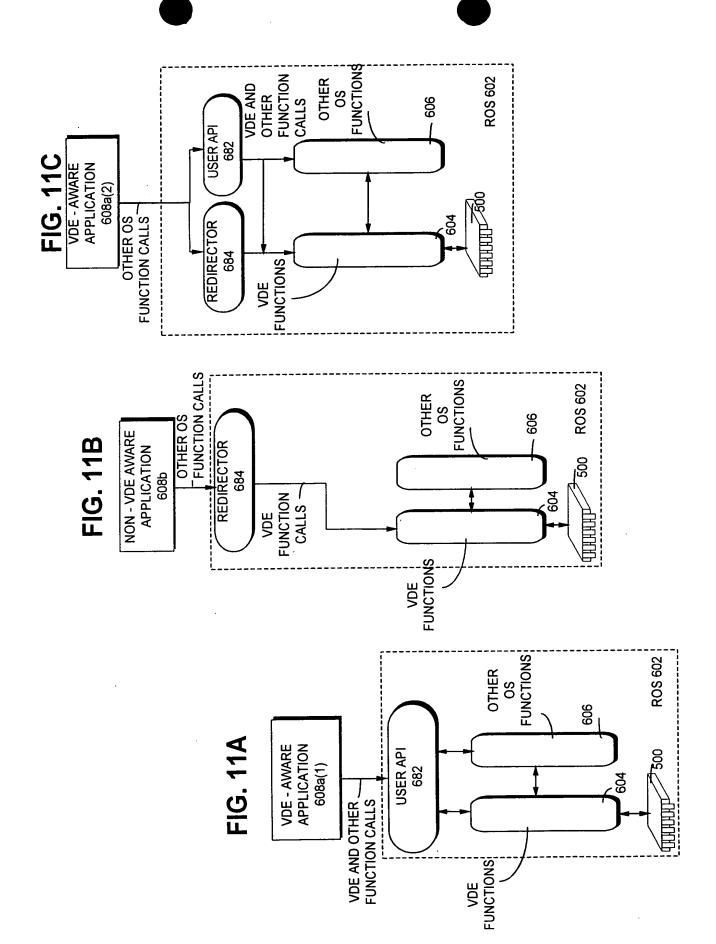


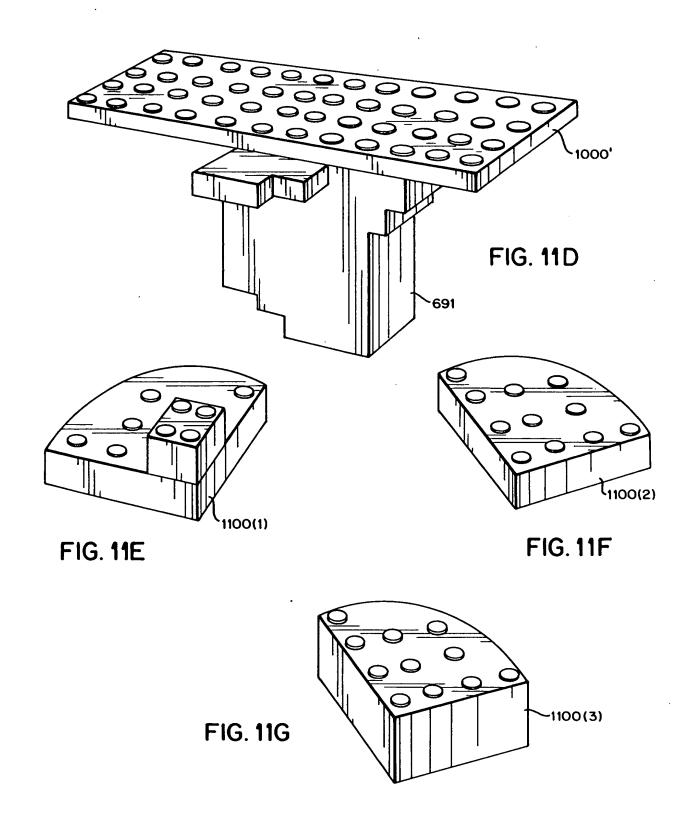












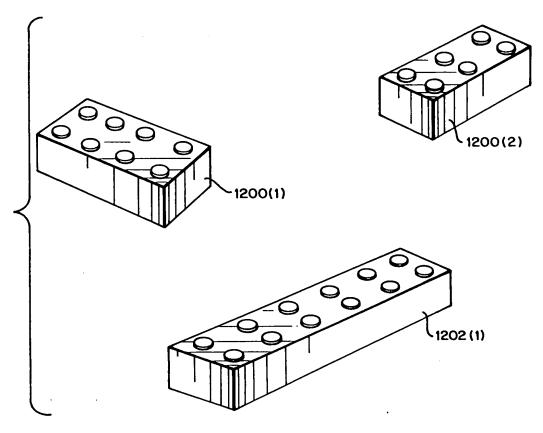
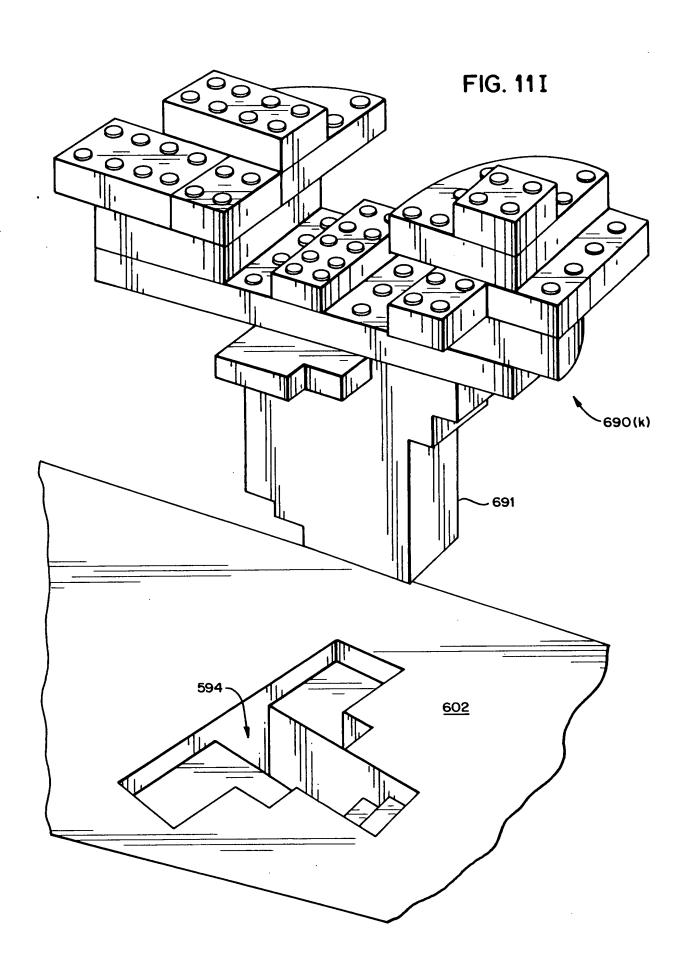
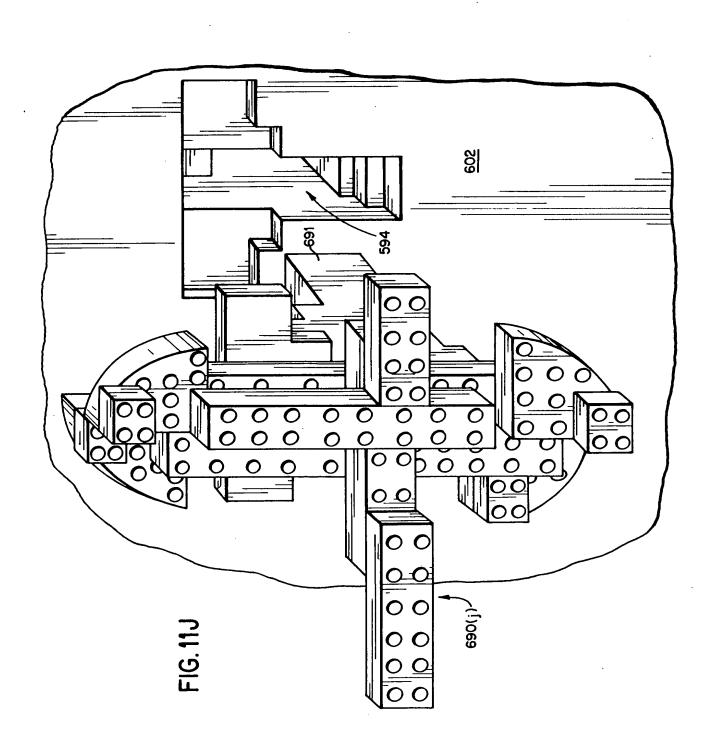
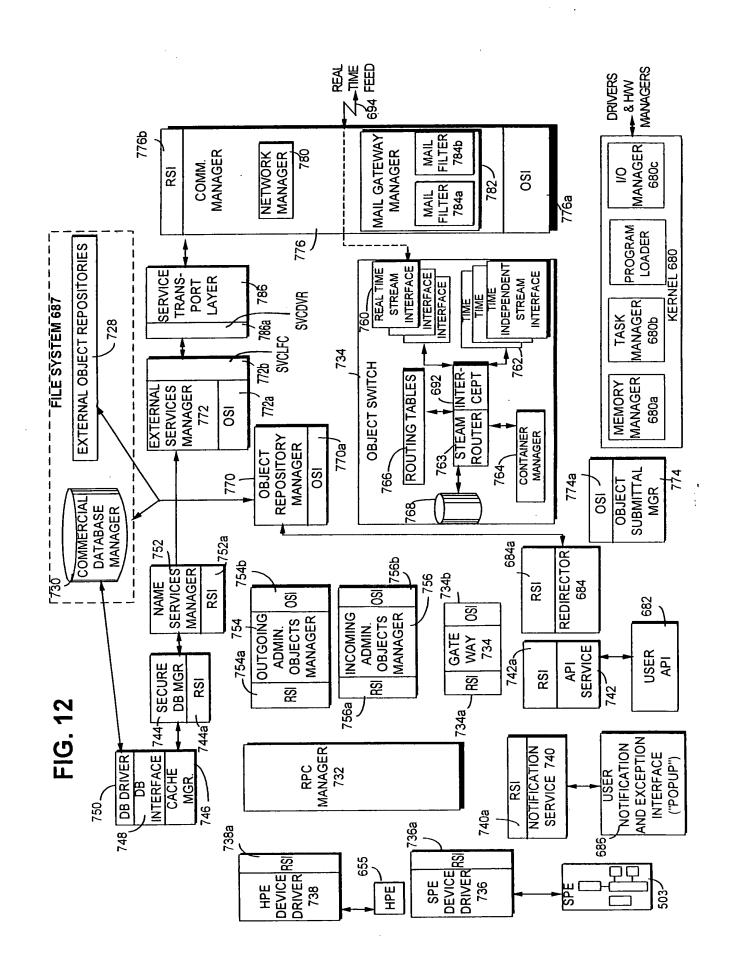


FIG. 11H







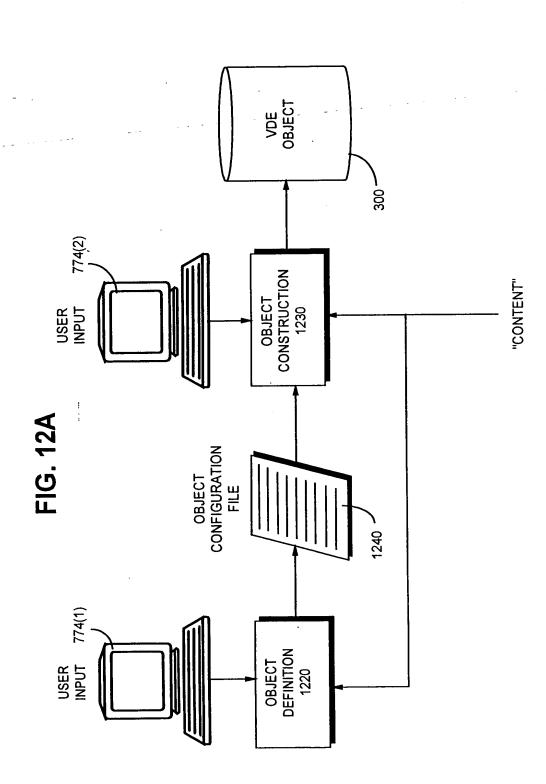


FIG. 13

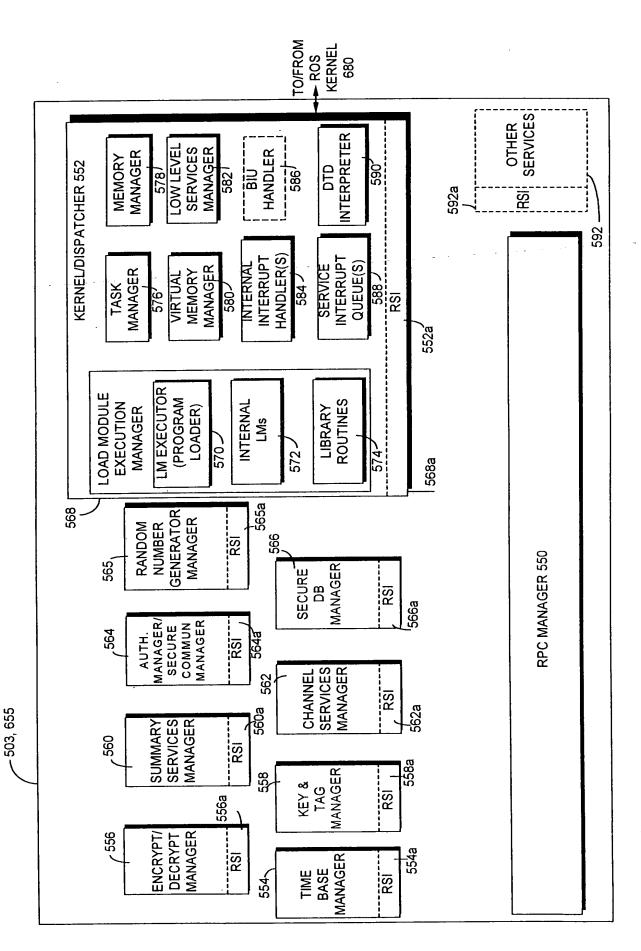


FIG. 14A

DEVICE FIRM WIRE LOW LEVEL SERVICES 582
INITIALIZATION
POST
DOWNLOAD CHALLENGE/RESPONSE AND AUTHENTICATION
RECOVERY
EEPROM/FLASH MEMORY MANAGER
KERNEL/DISPATCHER 552
INITIALIZATION
TASK MANAGER 576 (SLEEP/AWAKE/CONTEXT SWAP)
INTERRUPT HANDLER 584 (TIMER/BIU/POWER FAIL/WATCHDOG TIMER/ENCRYPTION COMPLETED)
BIU HANDLER 586
MEMORY MANAGER 578
INITIALIZATION (SETTING MMU TABLES
ALLOCATE
DELLOCATE
VIRTUAL MEMORY MANAGER 580
SWAP BLOCK PAGING
EXTERNAL MODULE PAGING
MEMORY COMPRESS
RPC AND TABLES 550
INITIALIZATION
MESSAGING CODE /SERVICES MANAGER
SEND/RECEIVE
STATUS
RPC DISPATCH TABLE
RPC SERVICE TABLE
•

TIME BASE MANAGER 554		
ENCRYTION/DECRYPTION MANAGER 556		
PK		
BULK		
KEY AND TAG MANAGER 558		
KEY STORAGE IN EEPROM		
KEY LOCATOR		
KEY GENERATOR		
CONVOLUTION ALGORITHM		
SUMMARY SERVICES MANAGER 560		
EVENT SUMMARIES		
BUDGET SUMMARIES		
DISTRIBUTER SUMMARY SERVICES		
CHANNEL SERVICES MANAGER 562		
CHANNEL HEADERS		
CHANNEL DETAILS		
LOAD MODULE EXECUTION SERVICES 568 AUTHENTICATION MANAGER/SECURE		
COMMUNICATION MANAGER 564		
DATABASE MANAGER 566 MANAGEMENT FILE SUPPORT		
TRANSACTION AND SEQUENCE NUMBER SUPPORT		
SRN/ HASH		
DTD INTERPRETER 590		
LIBRARY ROUTINES 574		
I/O CALLS(STRING SEARCH ETC.)		
MISC. ITEMS THAT ARE PROBABLY LIBRARY ROUTINES		
TAG CHECKING,MD5,CRC'S		
INTERNAL LM'S 572 FOR BASIC METHODS		
METER LOAD MODULE(S)		
BILLING LOAD MODULE(S)		
BUDGET LOAD MODULE(S)		
AUDIT LOAD MODULE(S)		
READ OBJECT LOAD MODULE(S)		
WRITE OBJECT LOAD MODULE(S)		
OPEN OBJECT LOAD MODULE(S)		
CLOSE OBJECT LOAD MODULE(S)		

FIG. 14B

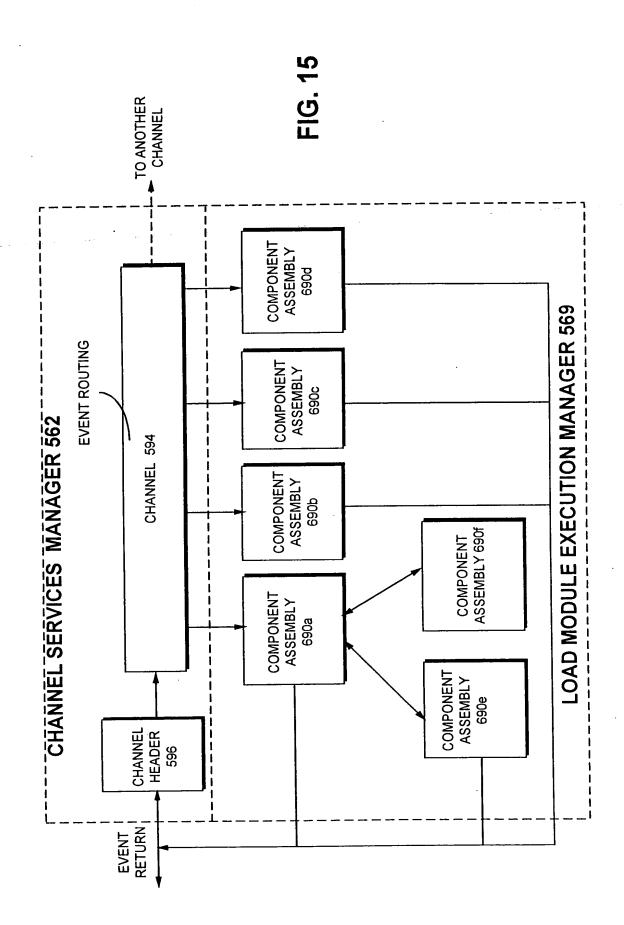
PUBLIC KEY AND PRIVATE KEY, SYSTEM ID,		
AUTHENTICATION CERTIFICATE, VDE SYSTEM PUBLIC KEY, PRIVATE DES KEY		
TOP LEVEL KEYS FOR OBJECTS		
TOP LEVEL BUDGET INFO		
METER SUMMATION VALUES		
KEY RECORDS FOR BUDGET RECORDS, AUDIT RECORDS, STATIC MANAGEMENT RECORDS, UPDATED MANAGEMENT RECORDS, ETC.		
DEVICE DATA TABLE		
SITE ID		
TIME		
ALARMS		
TRANSACTION/SEQUENCE #'S		
MISCELLANEOUS		
MEMORY MAP		
MAP METERS		
LM/UDT TABLE		
TASK MANAGER 576		
CHANNEL(S)		
SUMMARY SERVICES 560		
SECURE DATABASE TAGS		
SRN ENTRIES		
HASH ENTRIES		

•

FIG. 14C

STACK		
•		
CHANNEL SWAP BLOCK	CHANNEL LM	
•	CHANNEL HEADER & D1	
CONTROL SWAP BLOCK		
	CONTROL LM	
	CONTROL D1	
	COMMIT DA DA DA	
	COMMIT D1, D2, D3	
EVENT SWAP BLOCK	EVENT LM	
	MAP TABLE (SINGLE) D1	
METER SWAP BLOCK		
	METER LM	
	METER UDE DELTA, DELTA'	
	METER TRAIL LM	
	METER TRAIL UDE	
	DELTA,DELTA'	
BUDGET SWAP BLOCK		
	METER LM	
	METER UDE DELTA, DELTA'	
	METER TRAIL LM	
	METER TRAIL UDE	
	DELTA,DELTA'	
BILLING SWAP BLOCK		
	BILLING LM	
	METER UDE	
	BUDGET UDE	
	BILLING TABLE UDE	
	BILLING TRAIL LM	
	BILLING TRAIL UDE DELTA'	

•



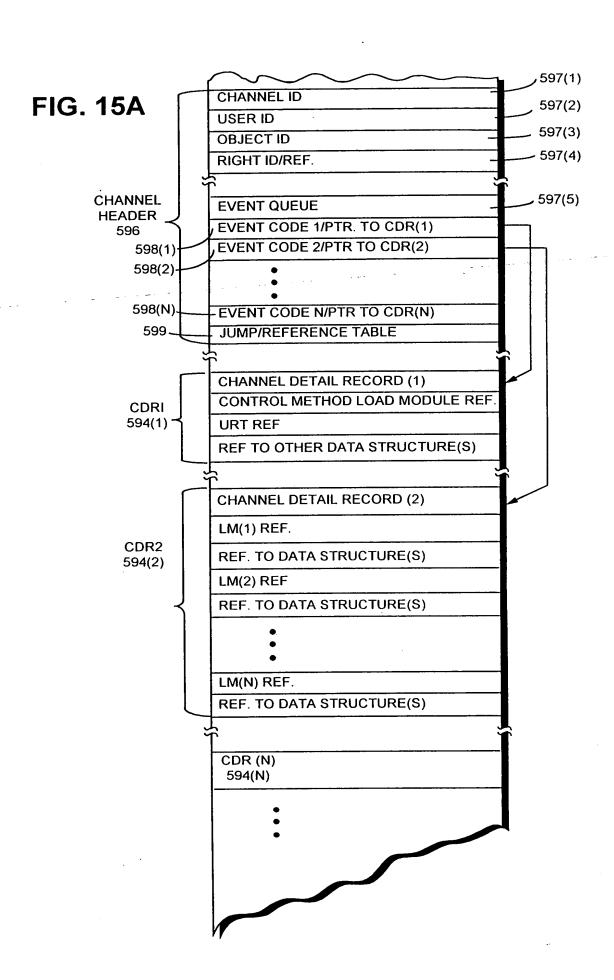


FIG. 15B

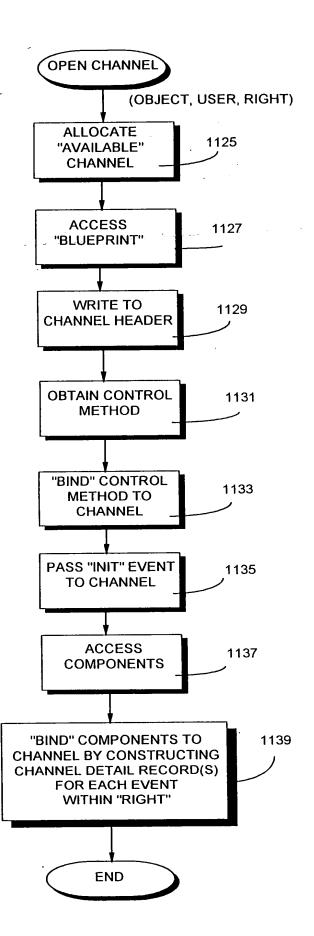
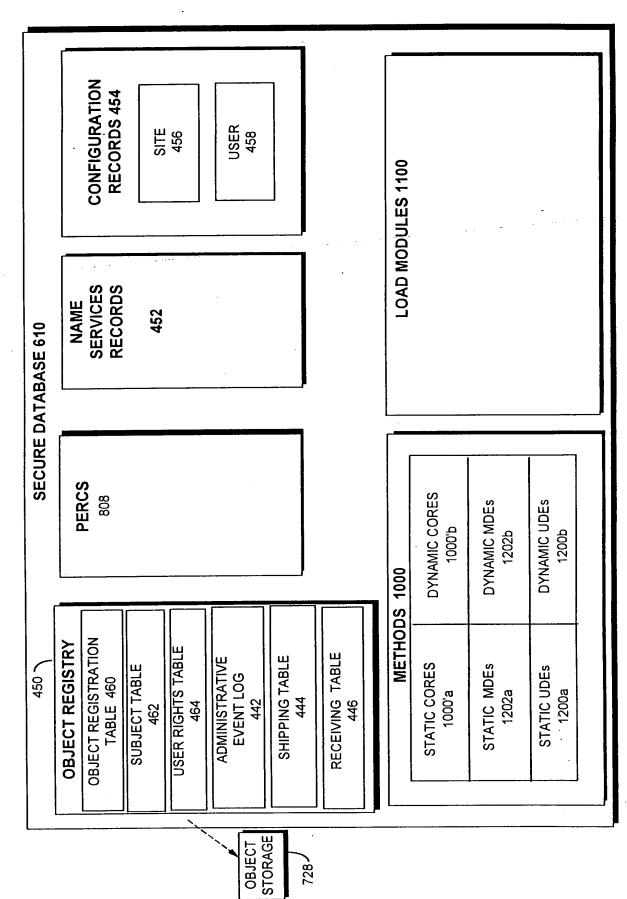


FIG. 16



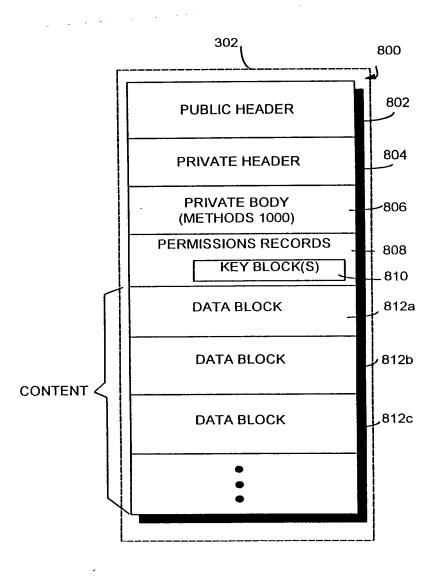


FIG. 17

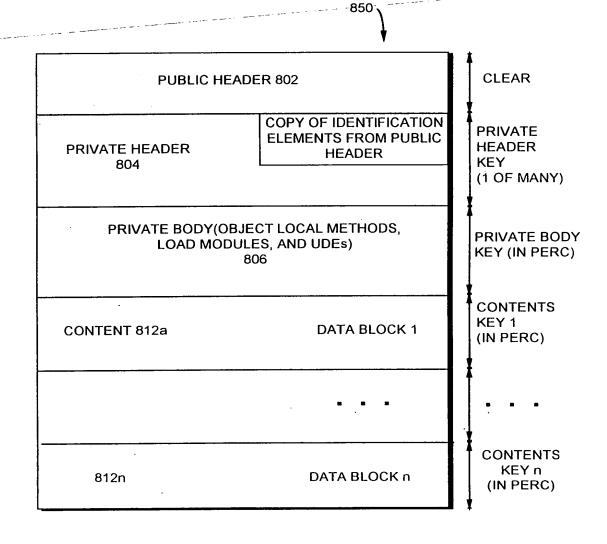
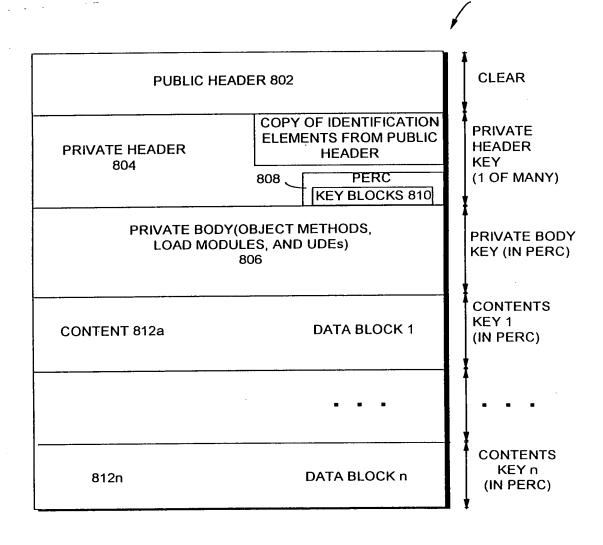


FIG. 18



860

FIG. 19

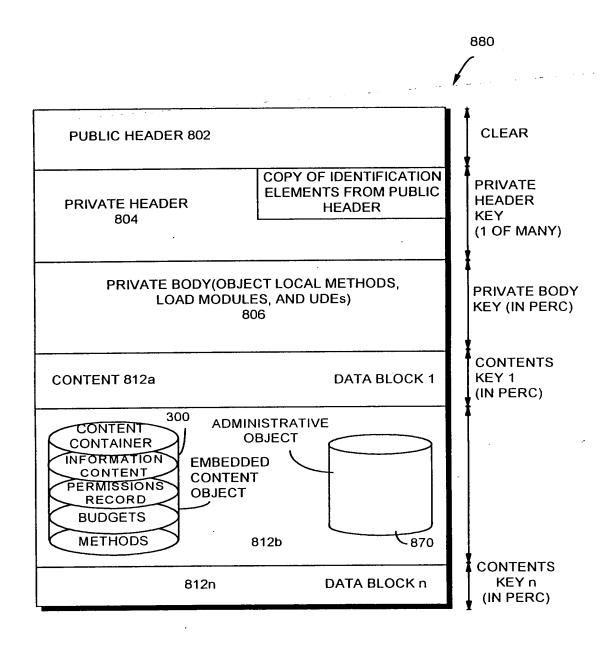


FIG. 20

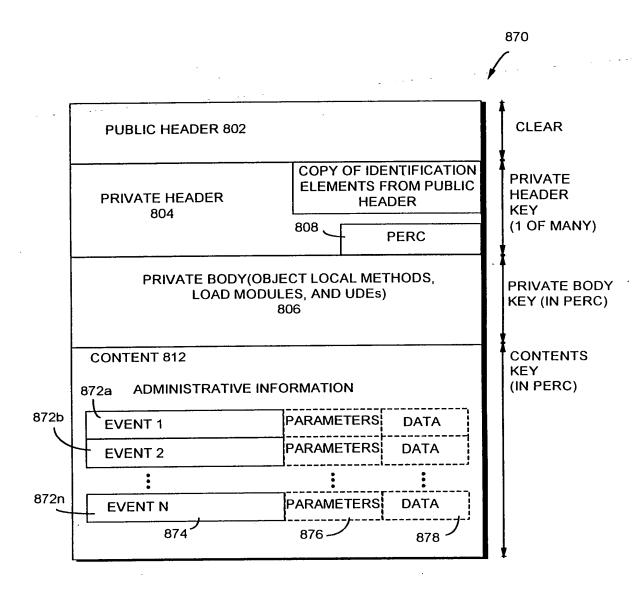


FIG. 21

FIG. 22

1000' **PUBLIC HEADER 802 CLEAR** TEXT **COPY OF IDENTIFICATION PRIVATE HEADER 804 ELEMENTS FROM PUBLIC HEADER** 1012(1) EVENT 1. 1016 1018a 1018b 1014 1012(2) **METHOD EVENT TABLE EVENT 2** 1012(3) **EVENT 3** SITE **SPECIFIC** PERC/ **METHOD EVENT 4** LM REF. **KEY** _1012(4) 1006 **DATA EVENT** 5 _ 1012(5) REF 1 1012(6) **DATA EVENT 6** REF 2 (7)1012ر **EVENT 7** ,1012(N) **EVENT N** SITE 1008 **SPECIFIC** METHOD LOCAL DATA AREA **METHOD** (MDEs, UDEs, DTDs OR PORTIONS THEREOF, KEY **OR REFERENCES THERETO)**

FIG. 23

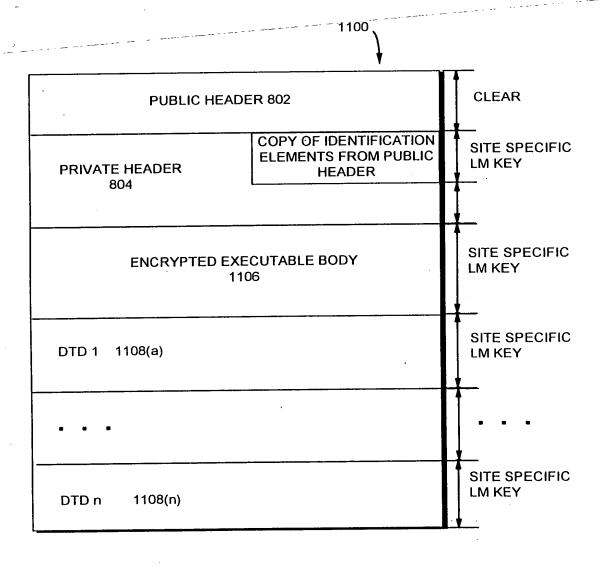


FIG. 24

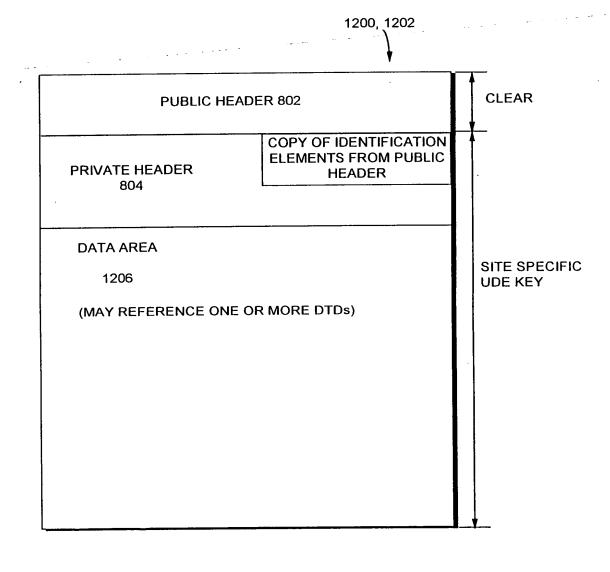


FIG. 25A

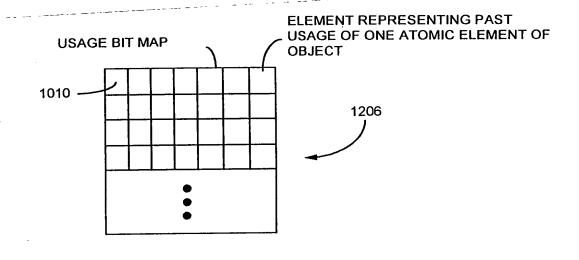
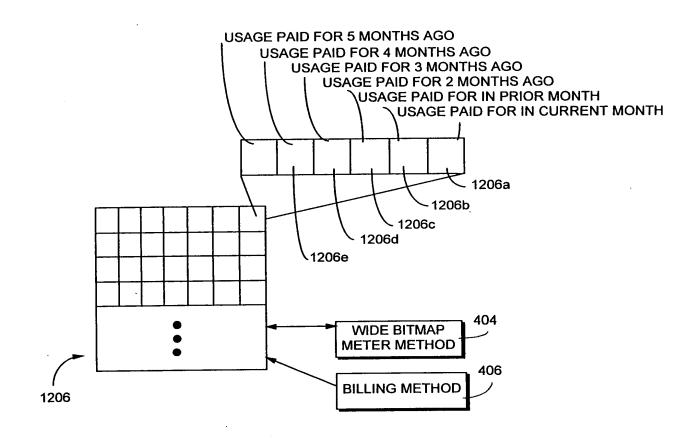


FIG. 25B

		TIME						
	JAN. FEB. MAR. APRIL MAY JUNE							
RECORDING NUMBER	1	0	2	0	1	0	0	
	2	0	0	5	10	3	٥	
	3	0	3	2	1	0		
	4	0	0	0	1	0	Y	
	. 5	0	0	1	0			
	6	0	0	0				
1206								

FIG. 25C



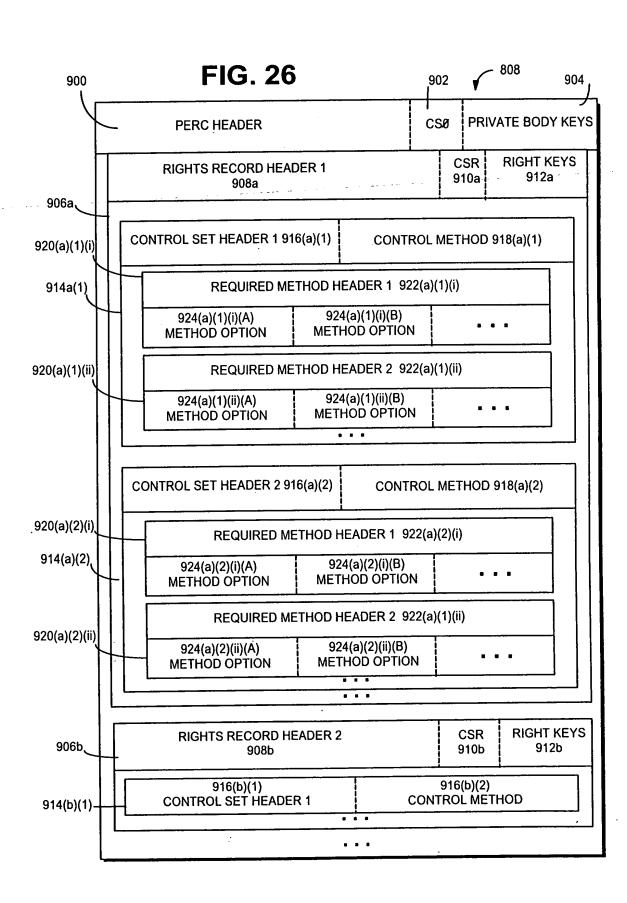


FIG. 26A

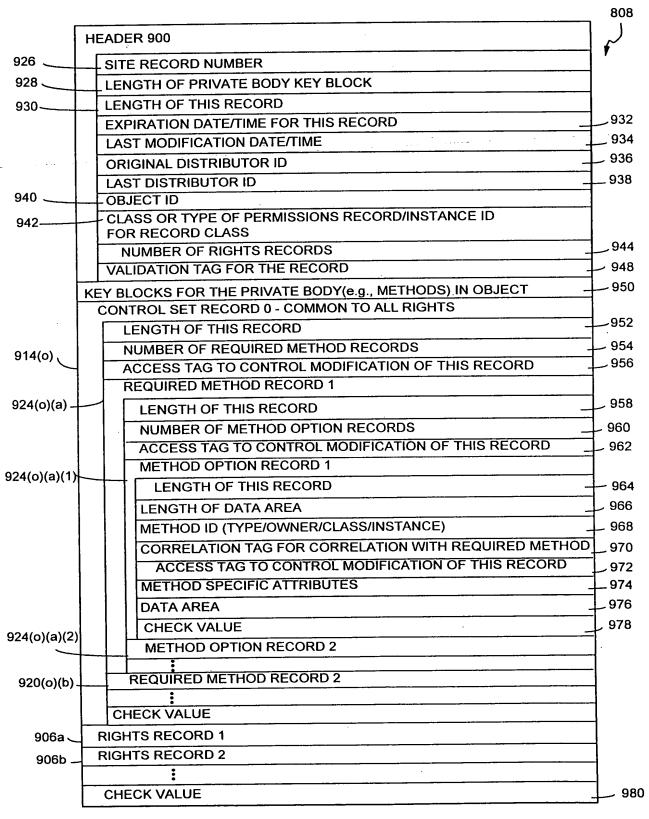


FIG. 26B

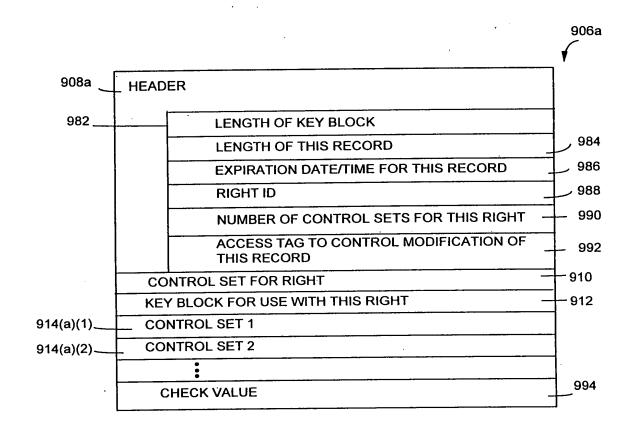


FIG. 27

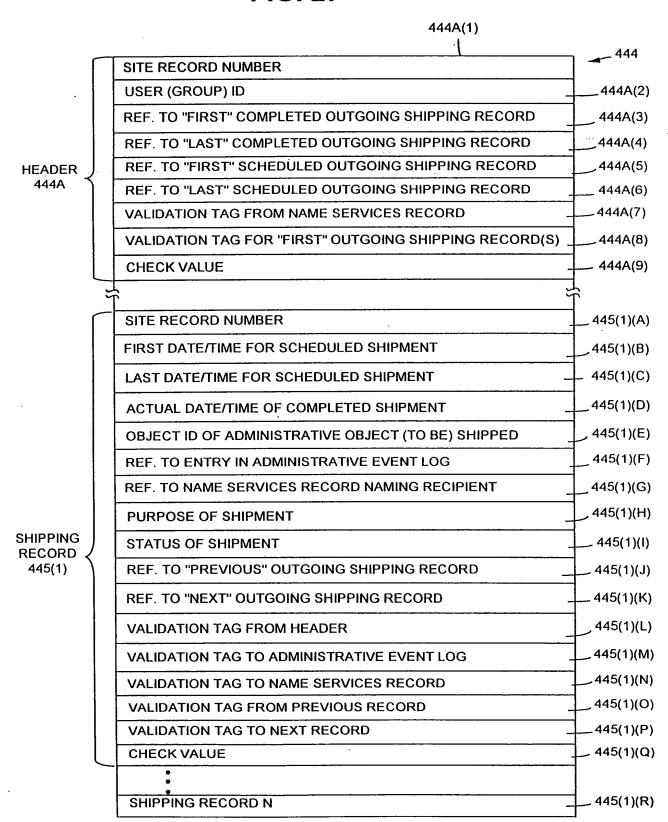


FIG. 28

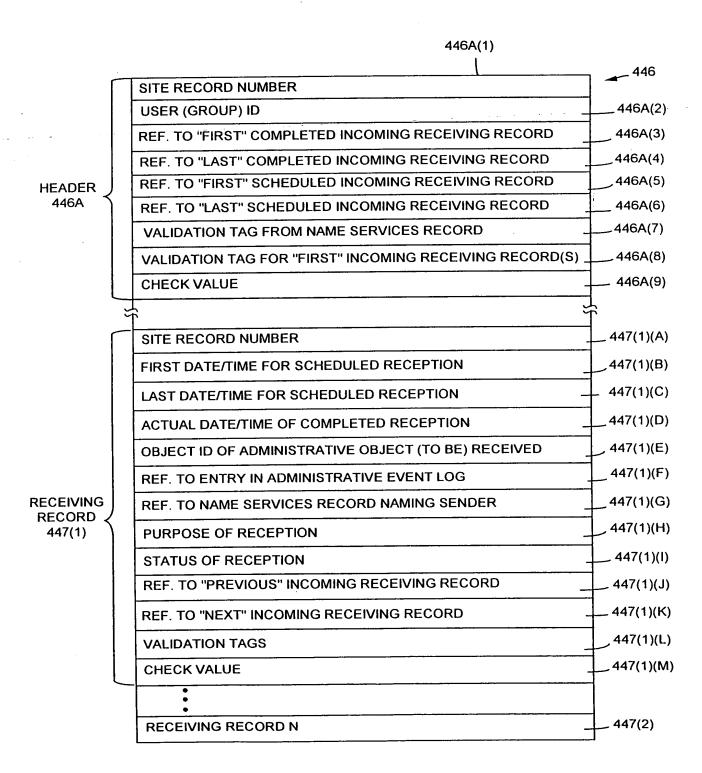
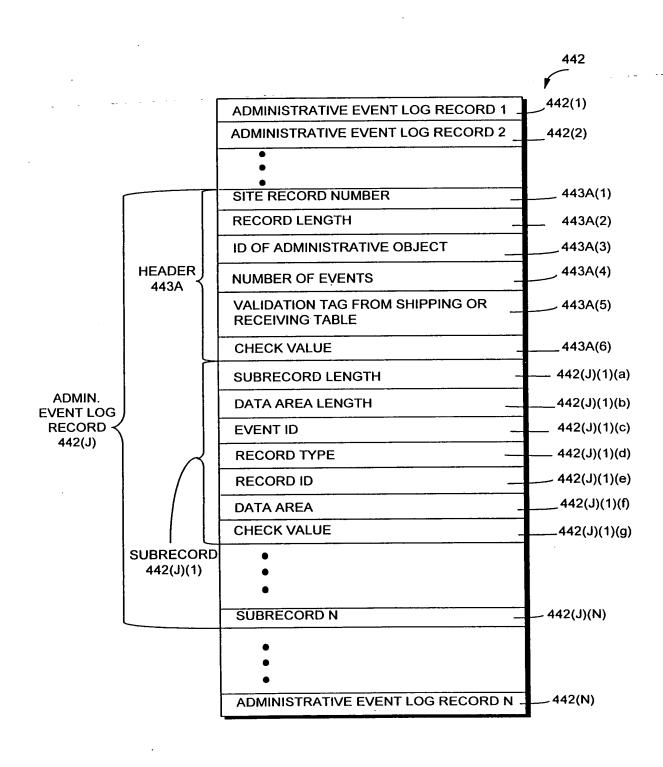
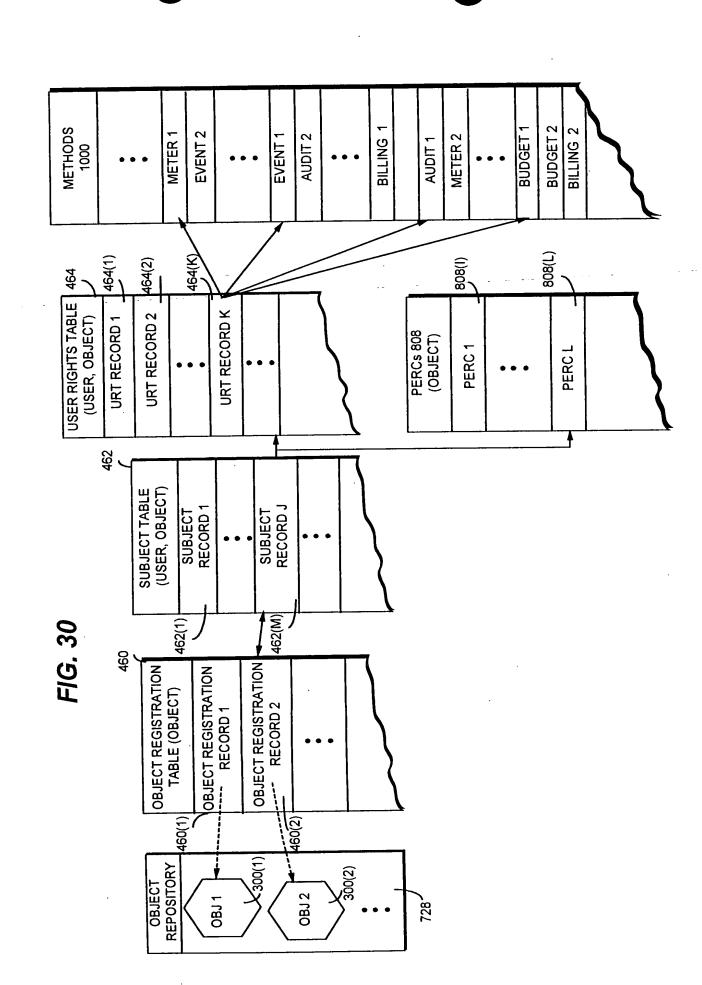


FIG. 29





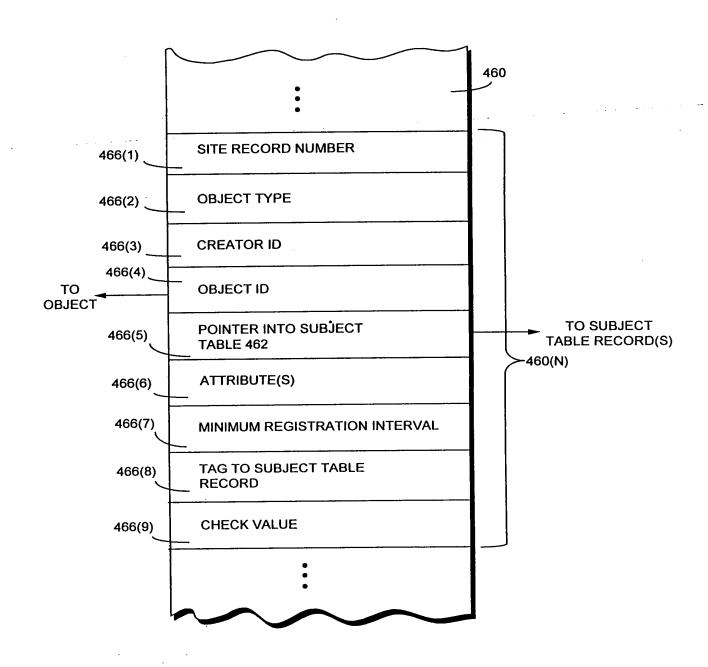
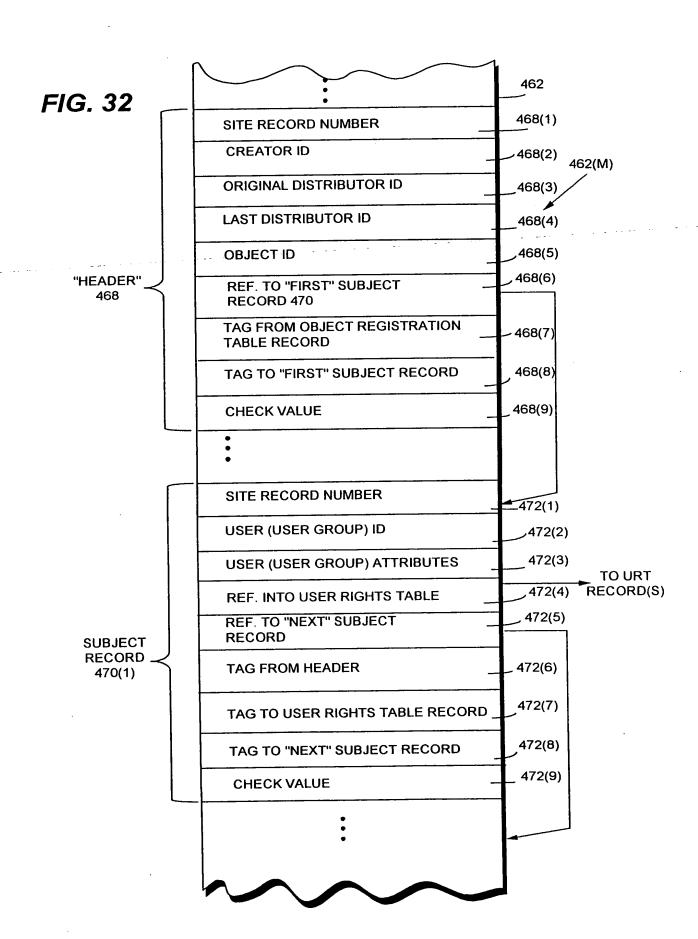
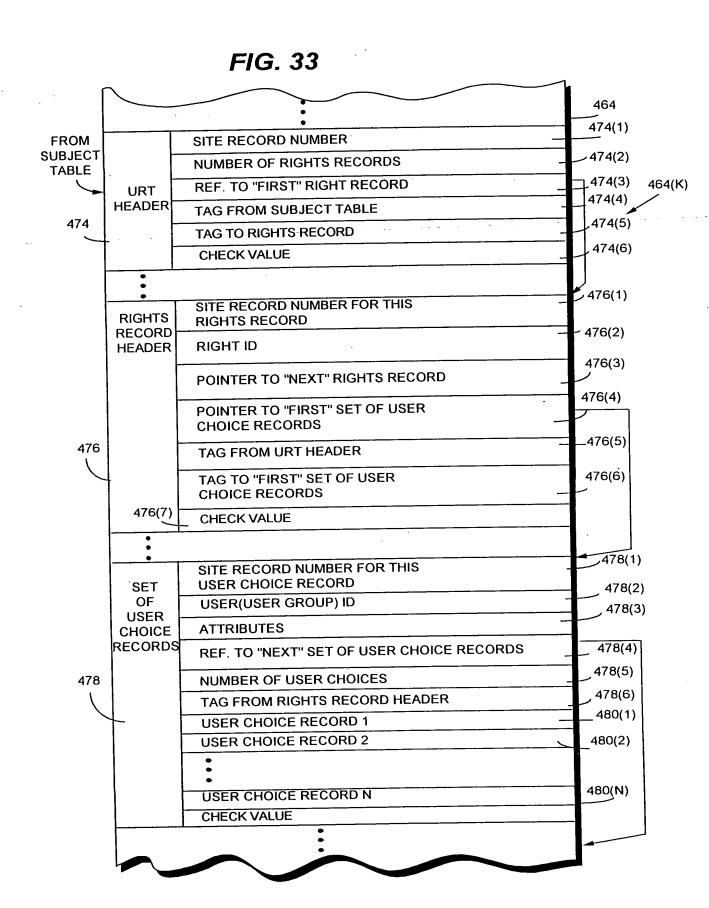


FIG. 31





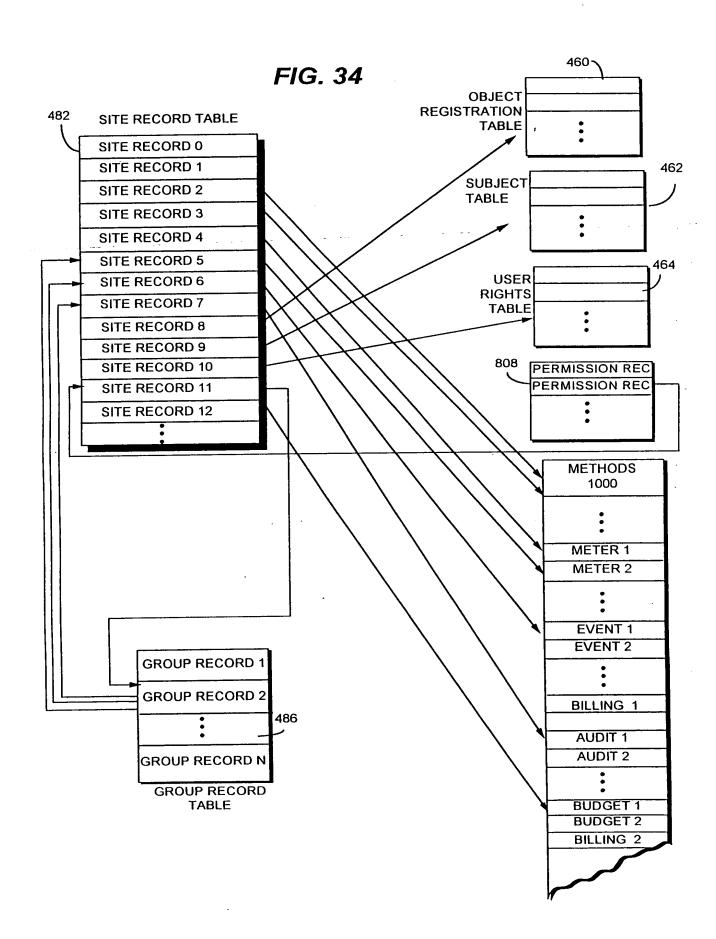


FIG. 34A

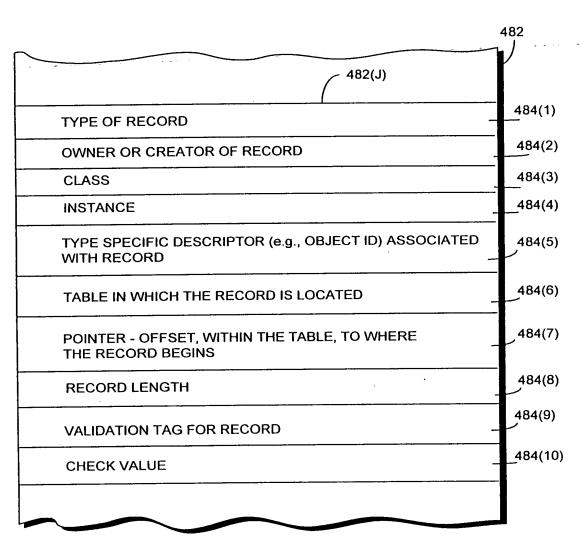
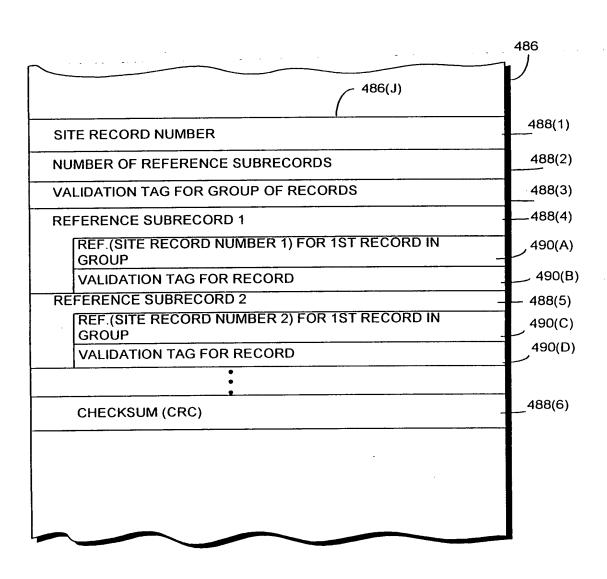
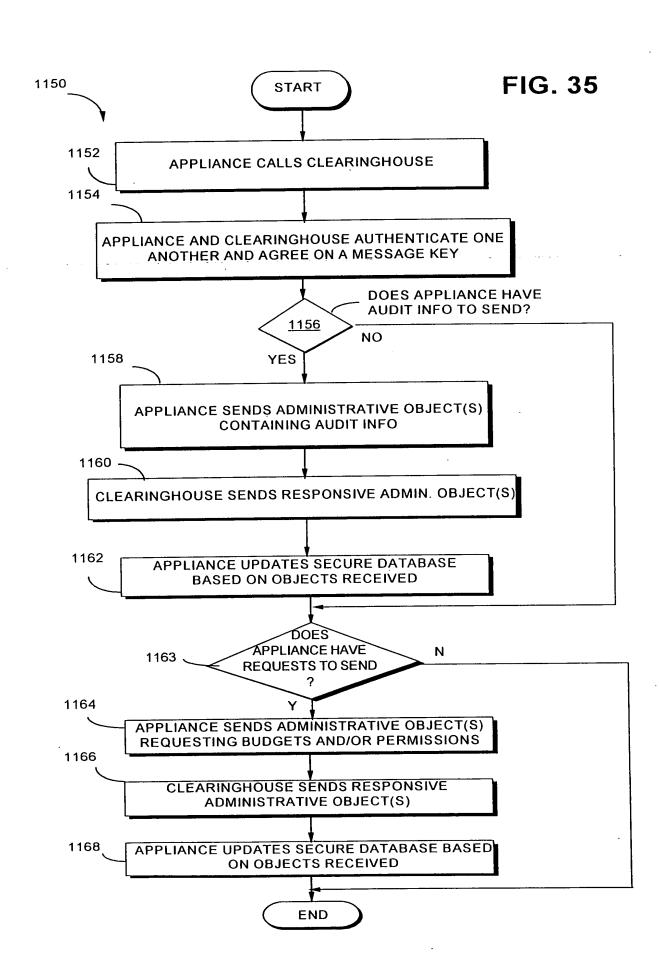
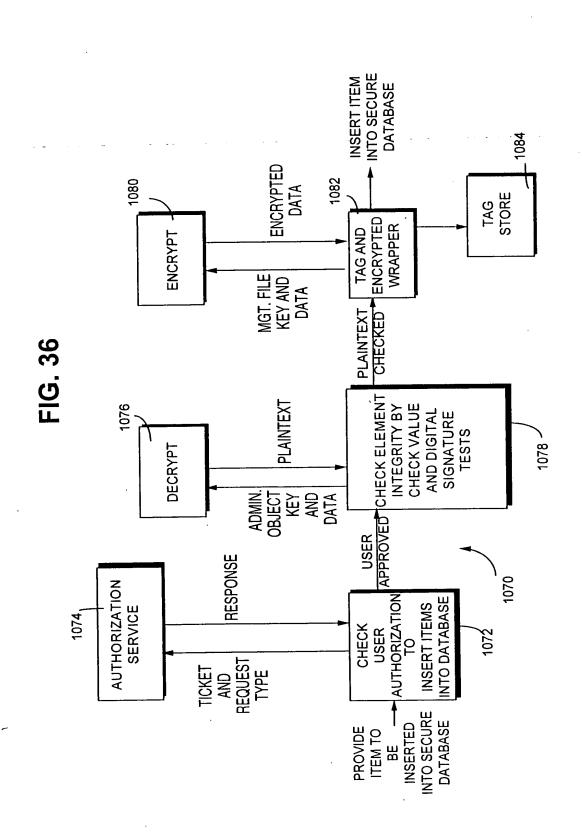


FIG. 34B







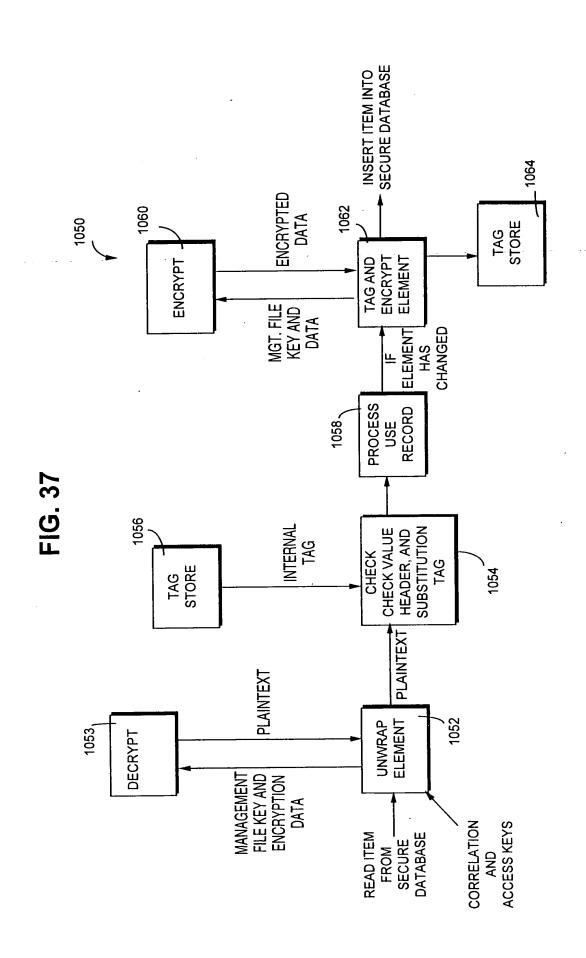
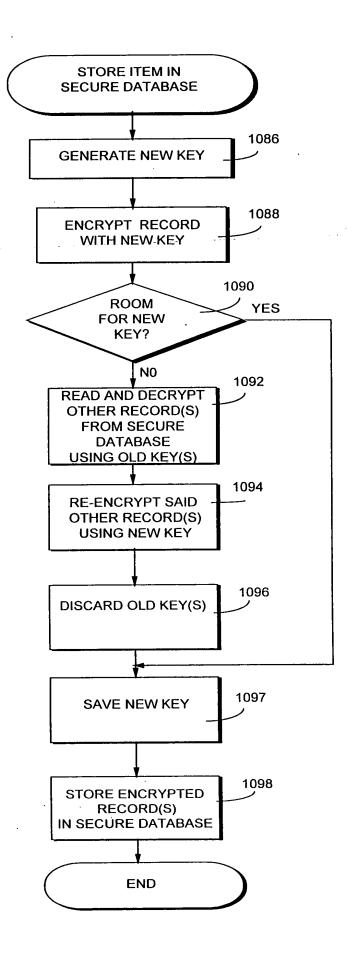
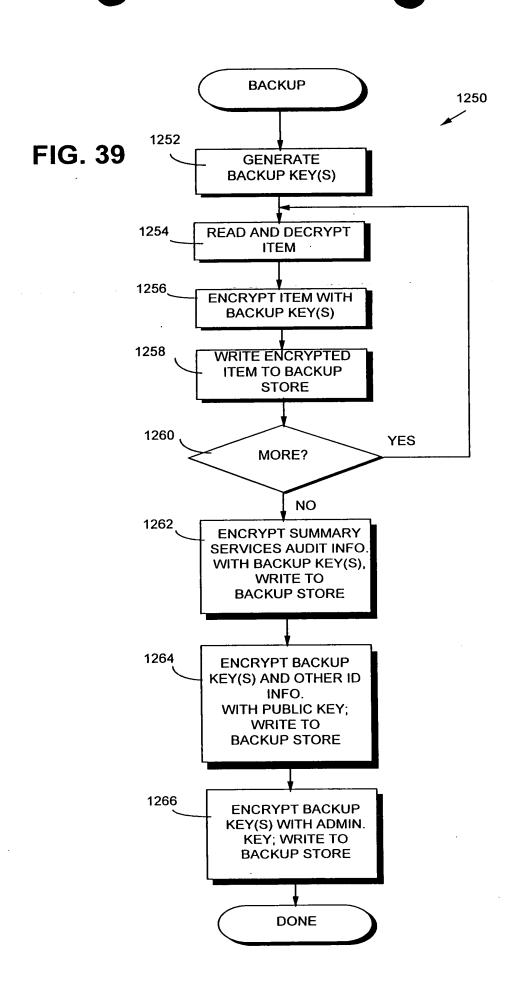
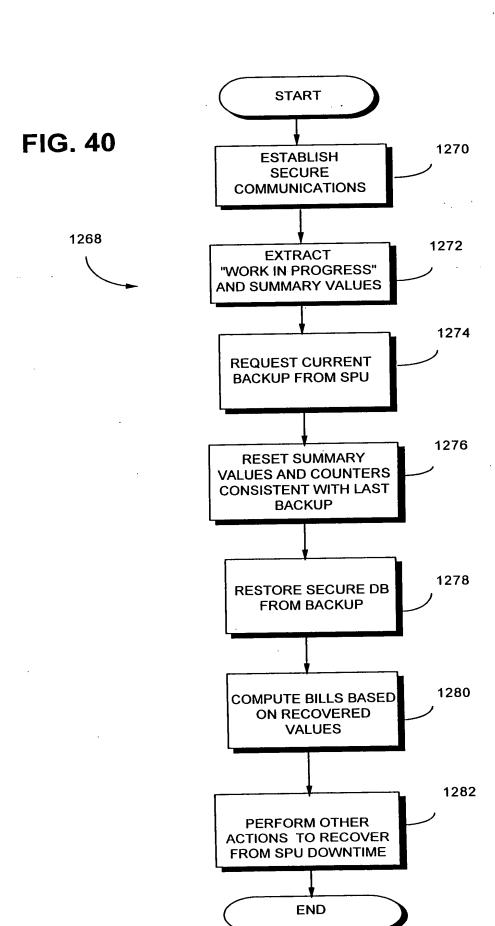


FIG. 38







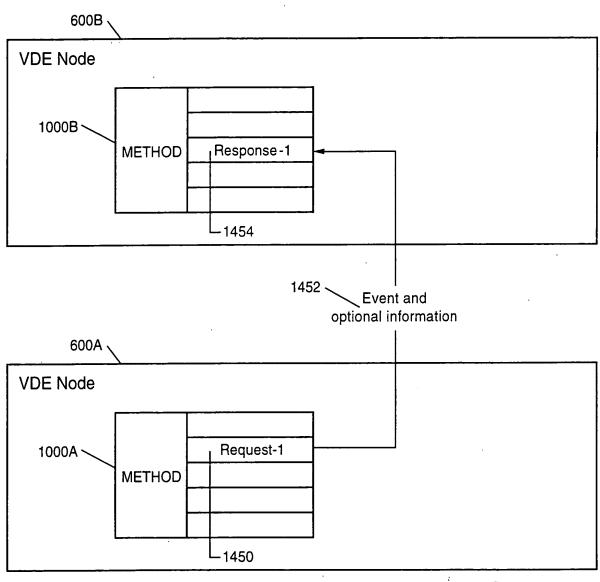


FIG. 41a

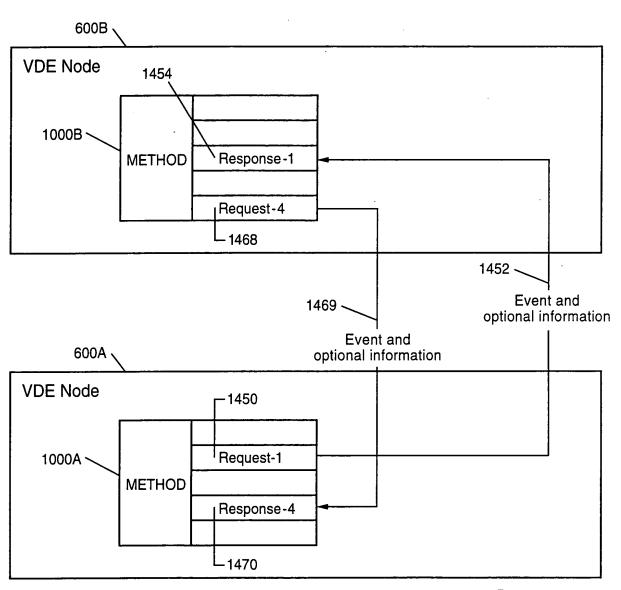
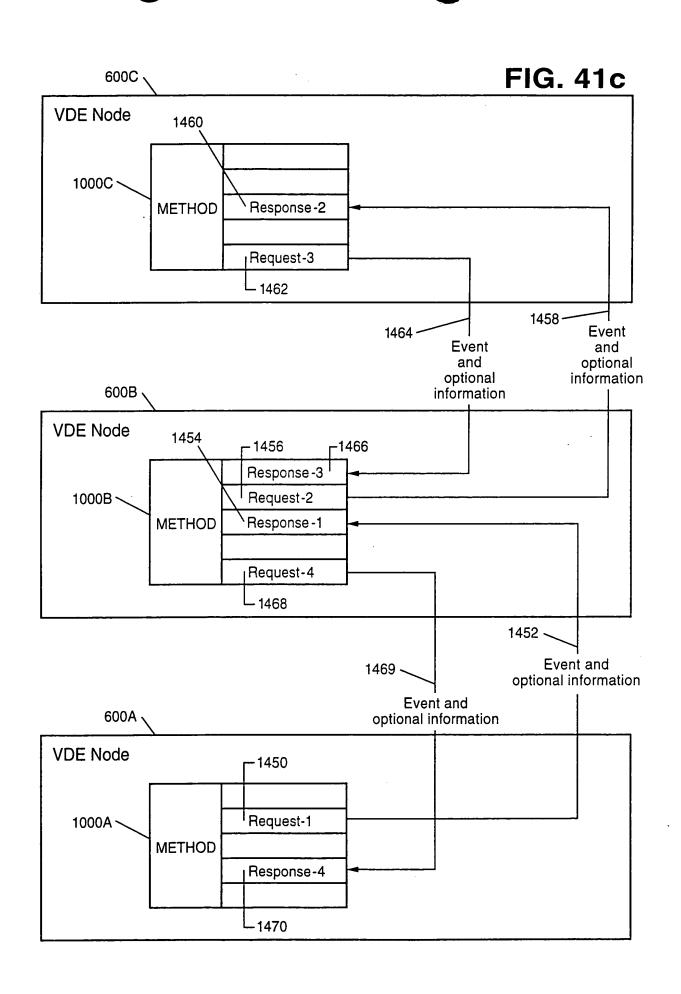
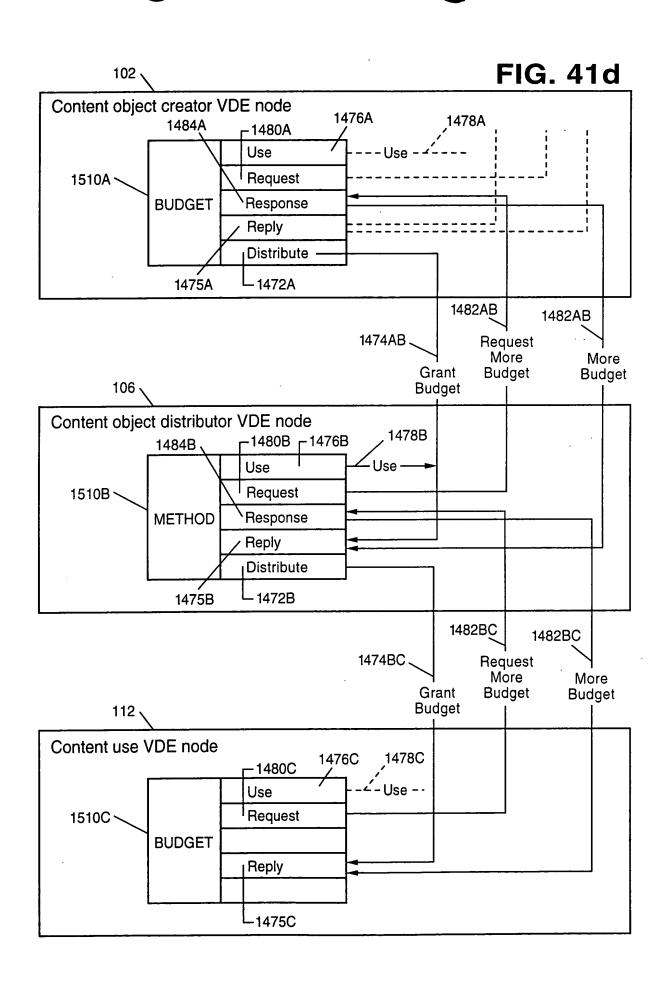
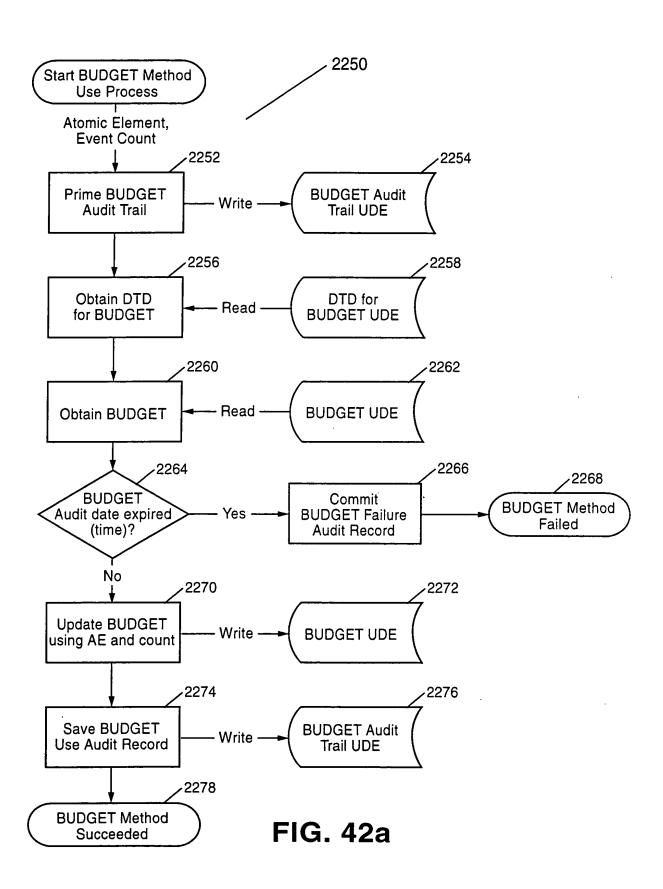
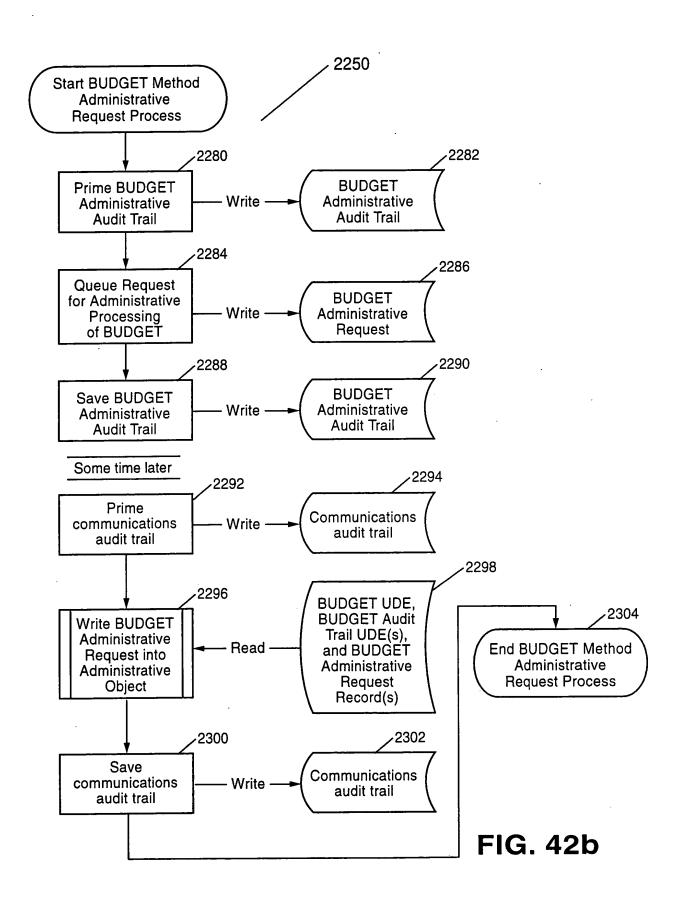


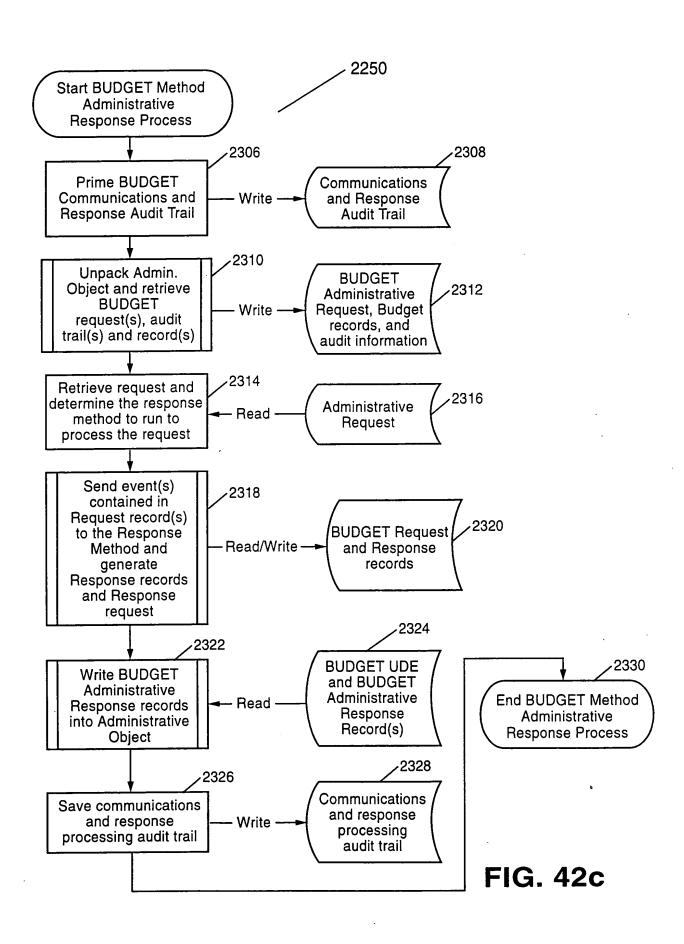
FIG. 41b

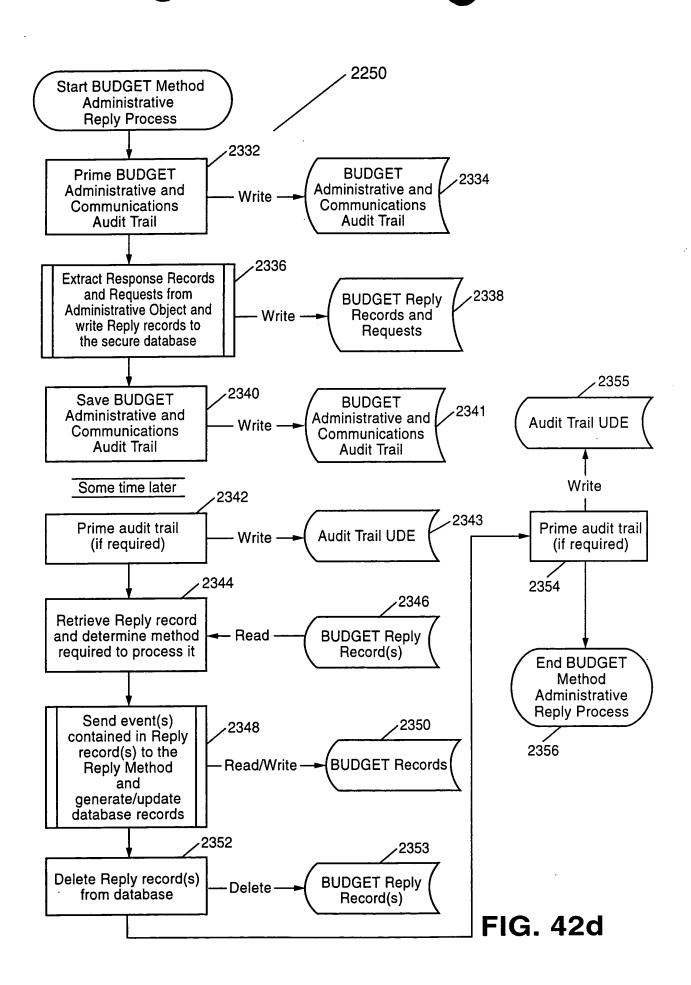












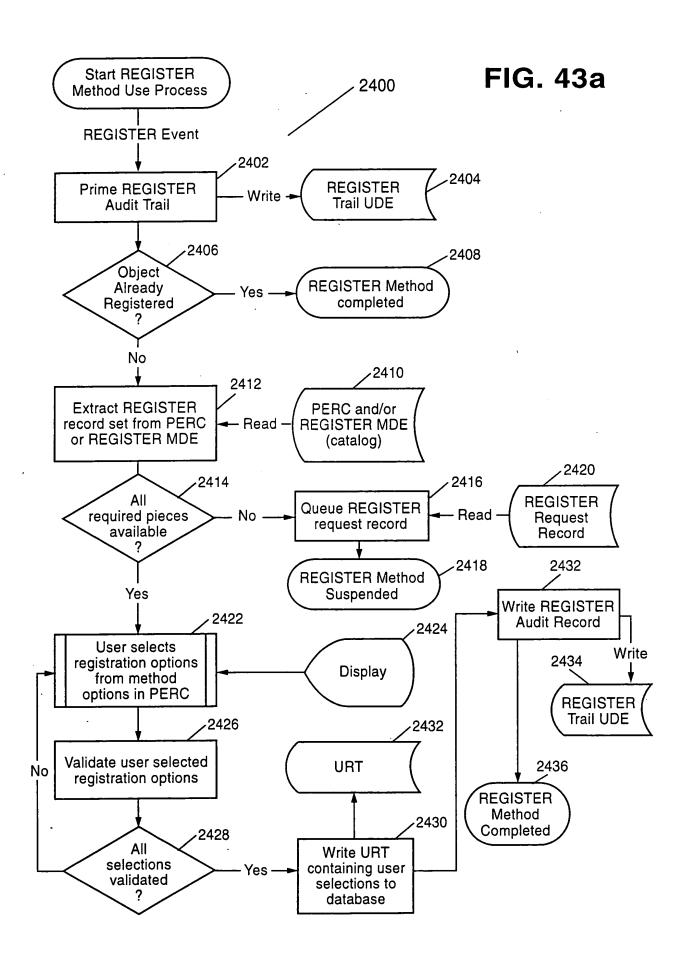
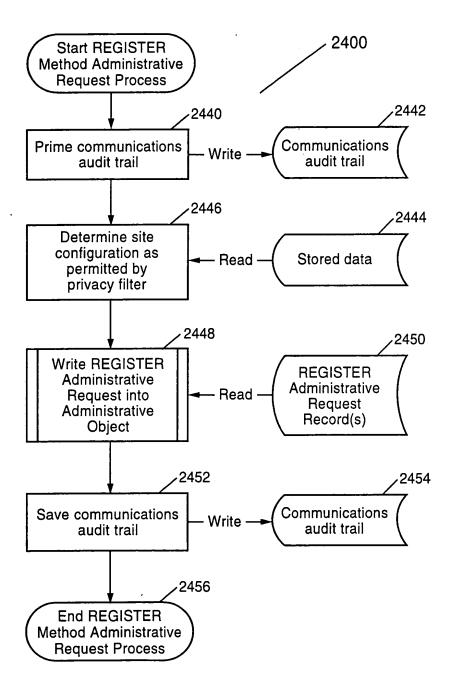
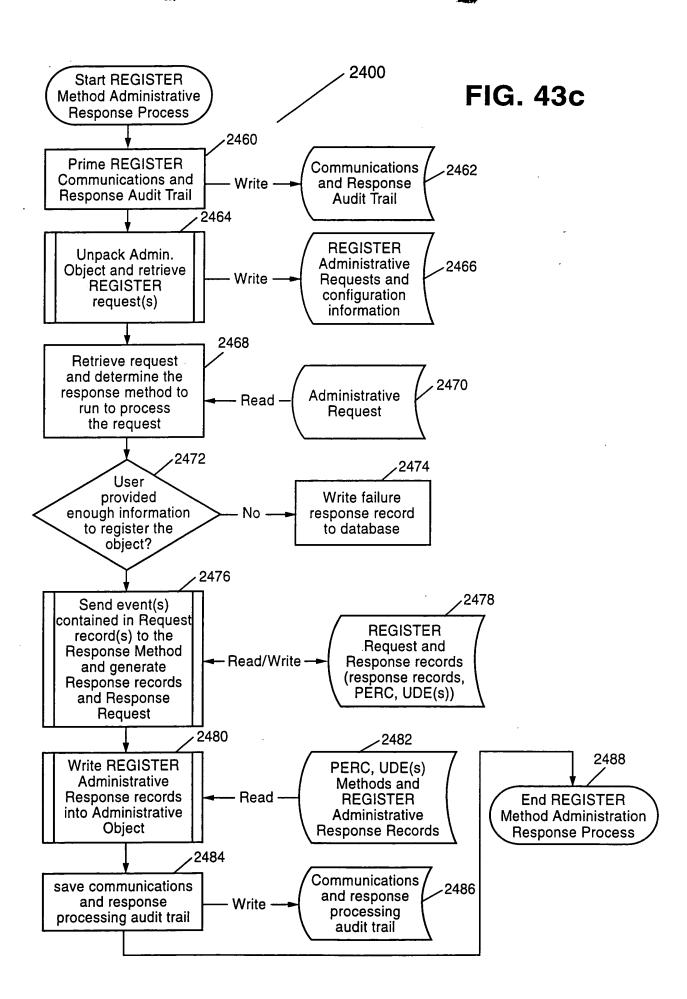
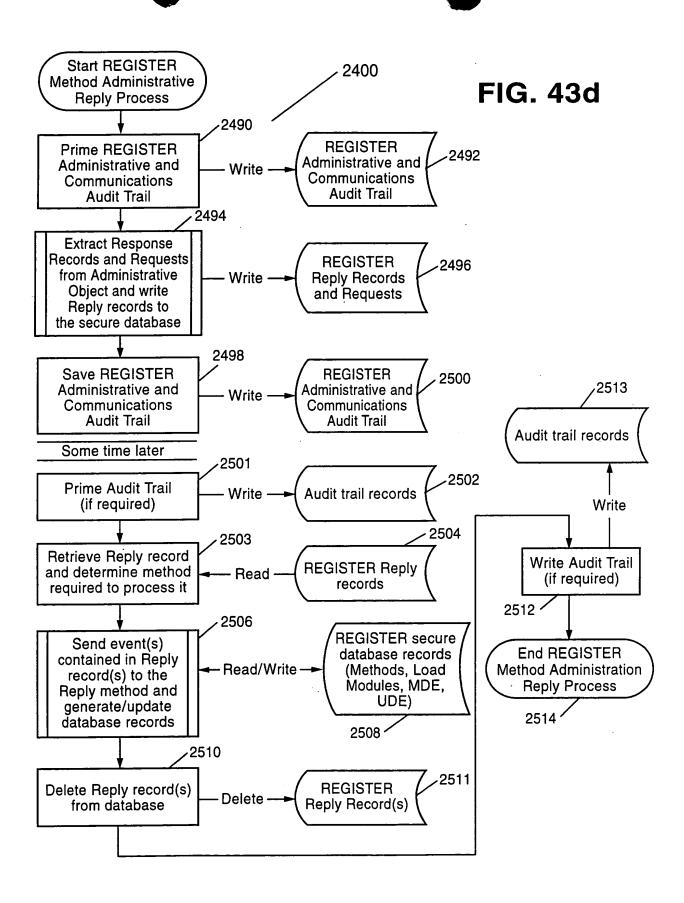
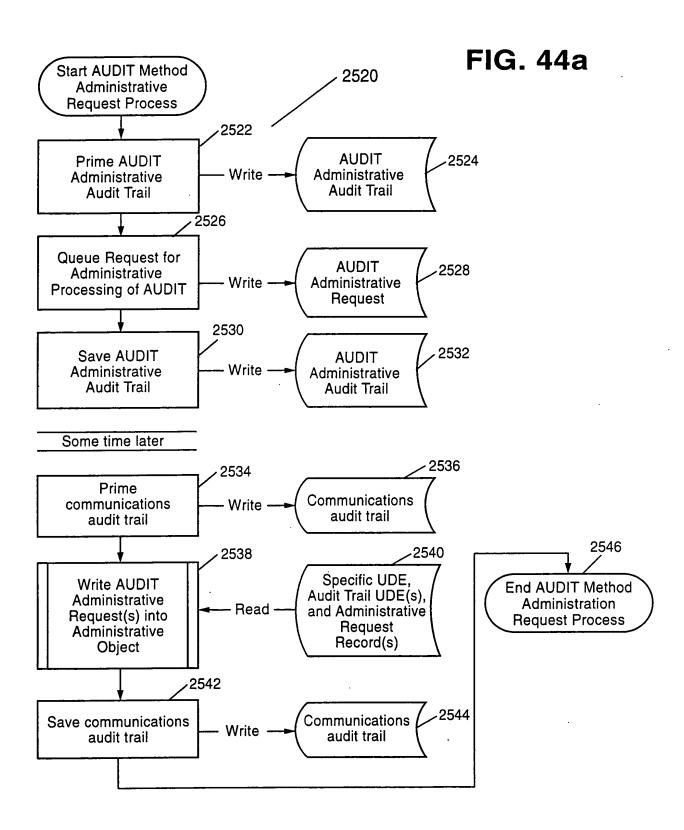


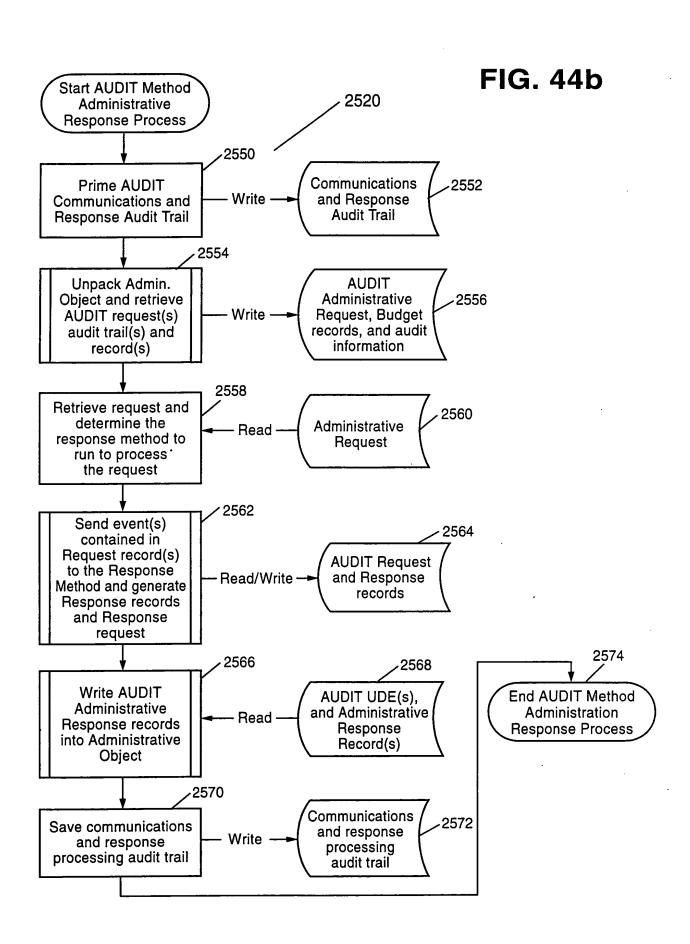
FIG. 43b











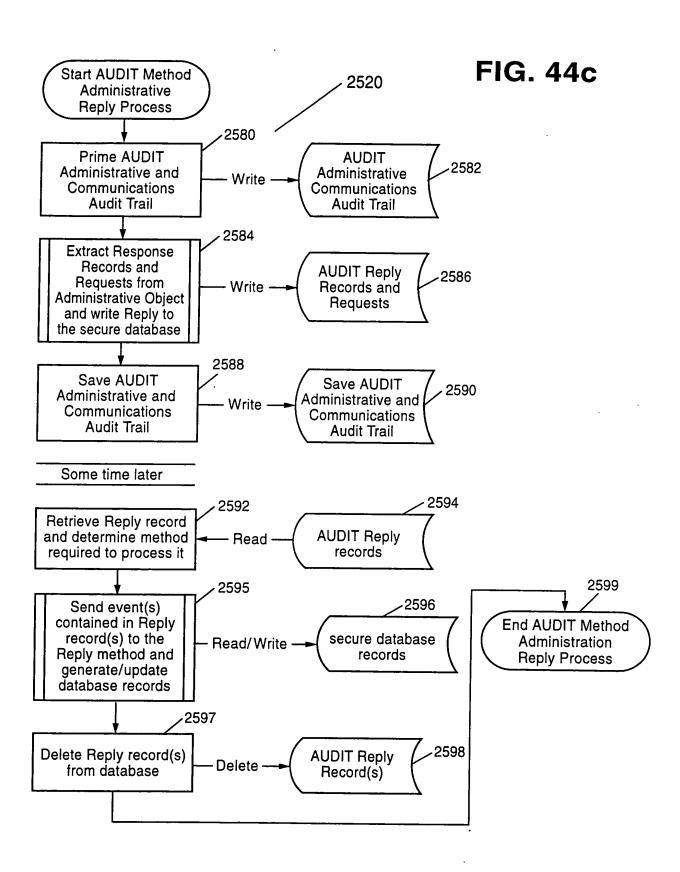


FIG. 45

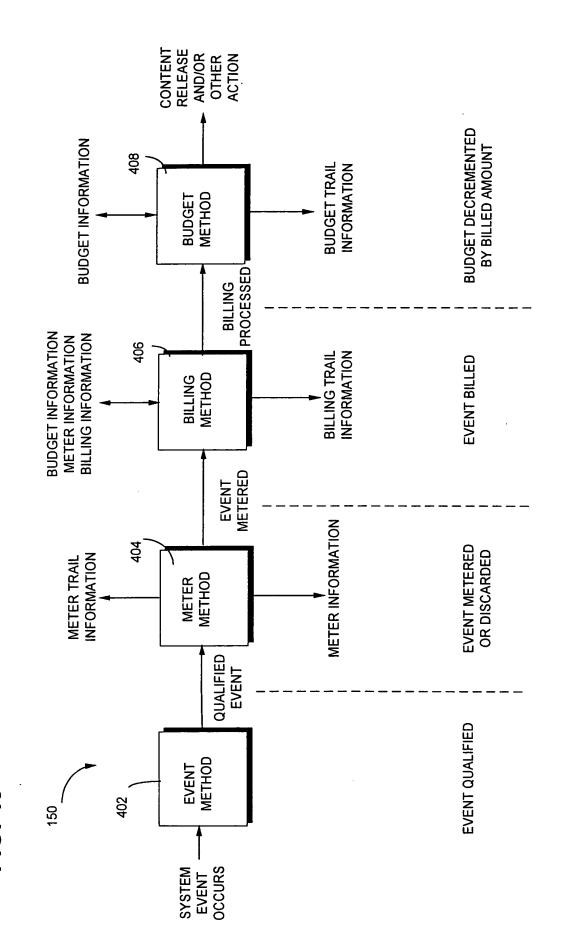
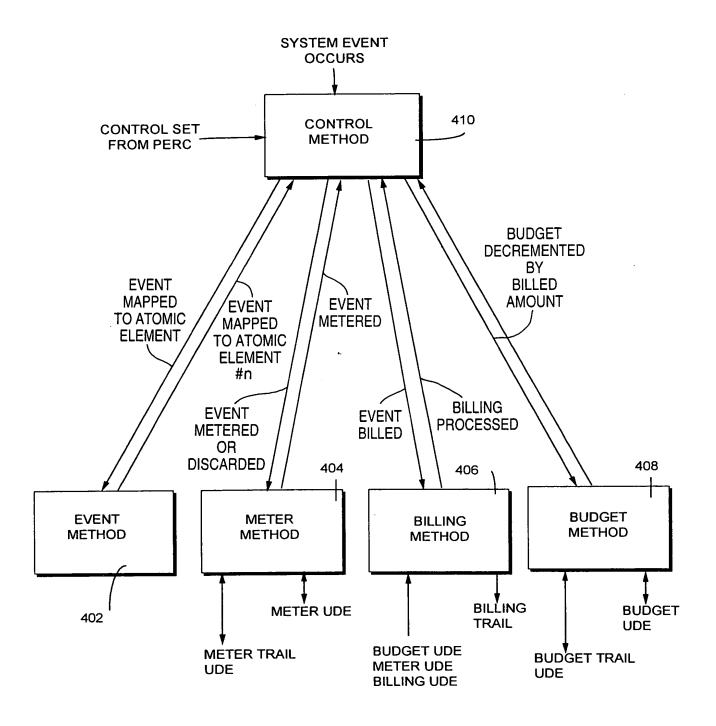
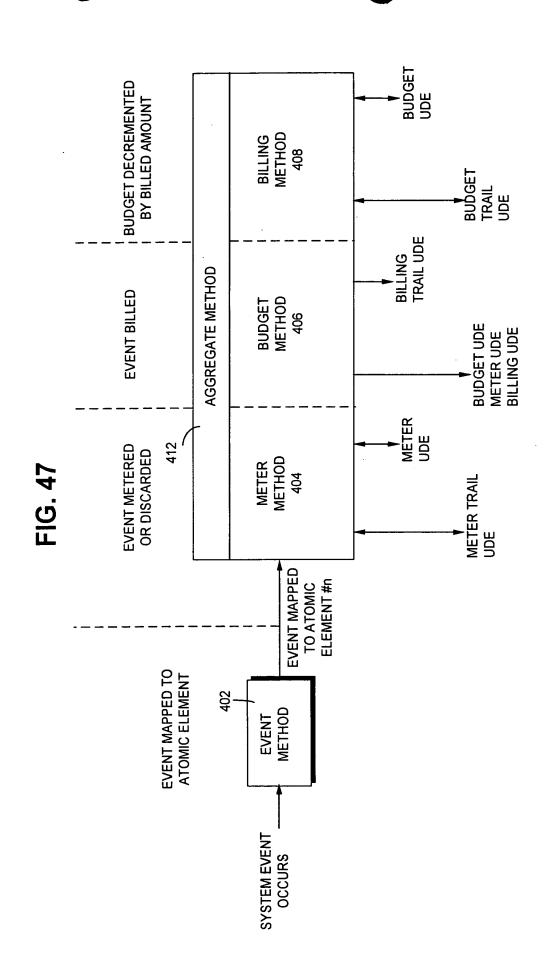
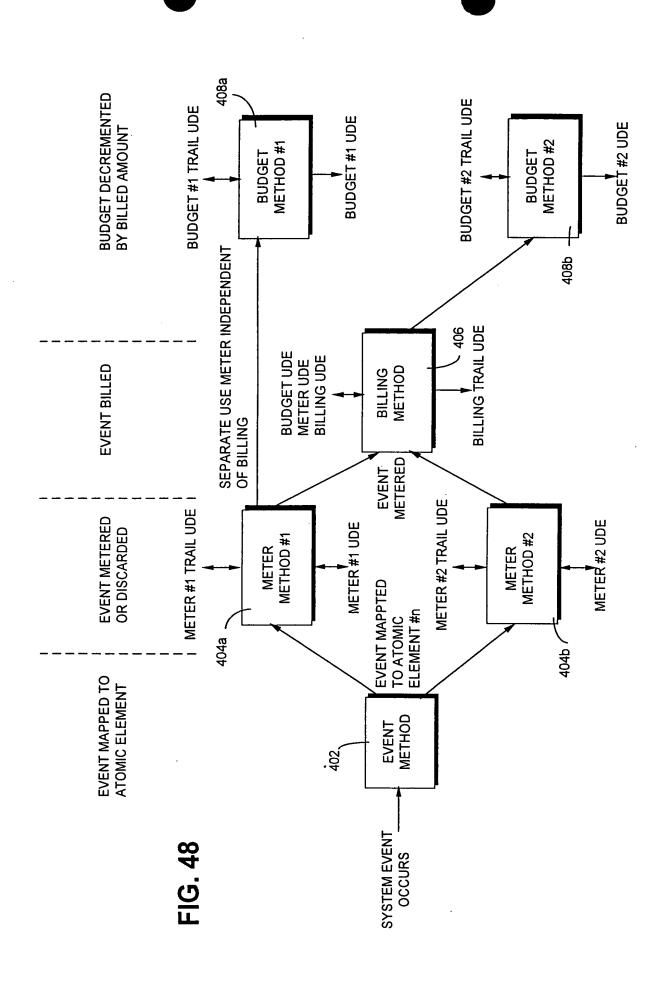
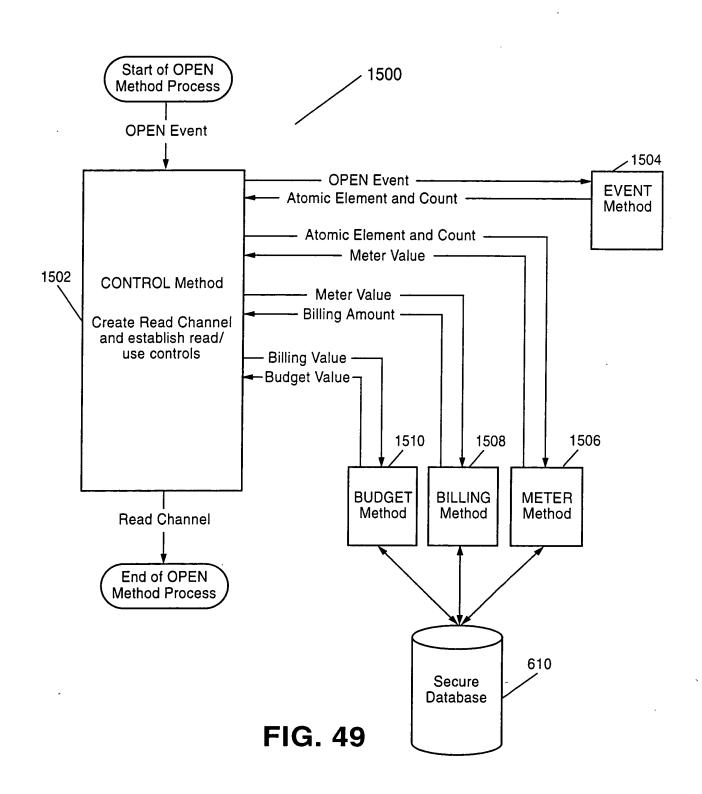


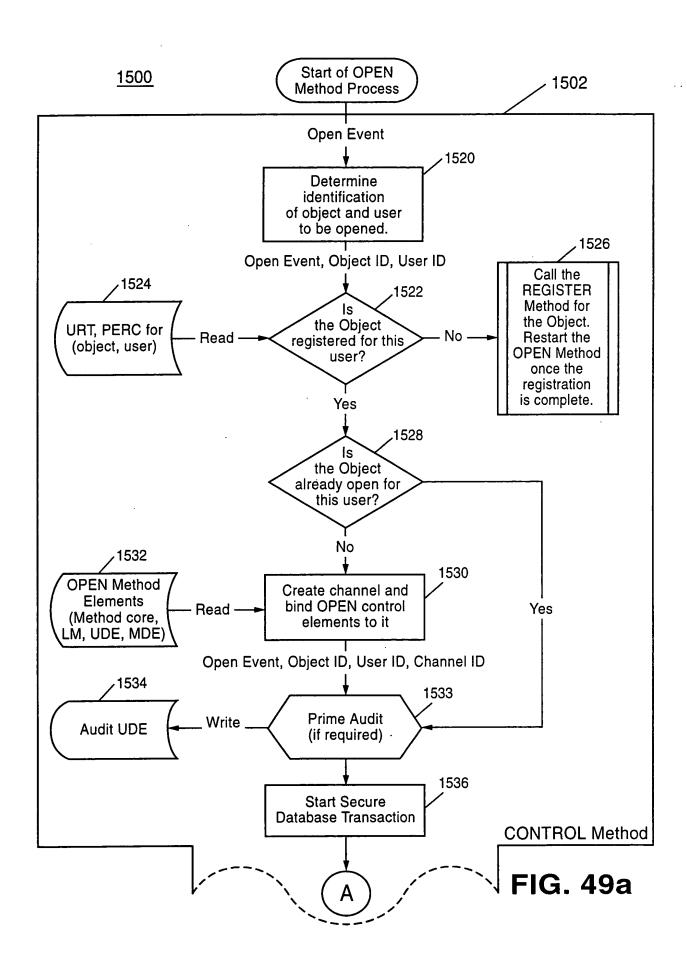
FIG. 46

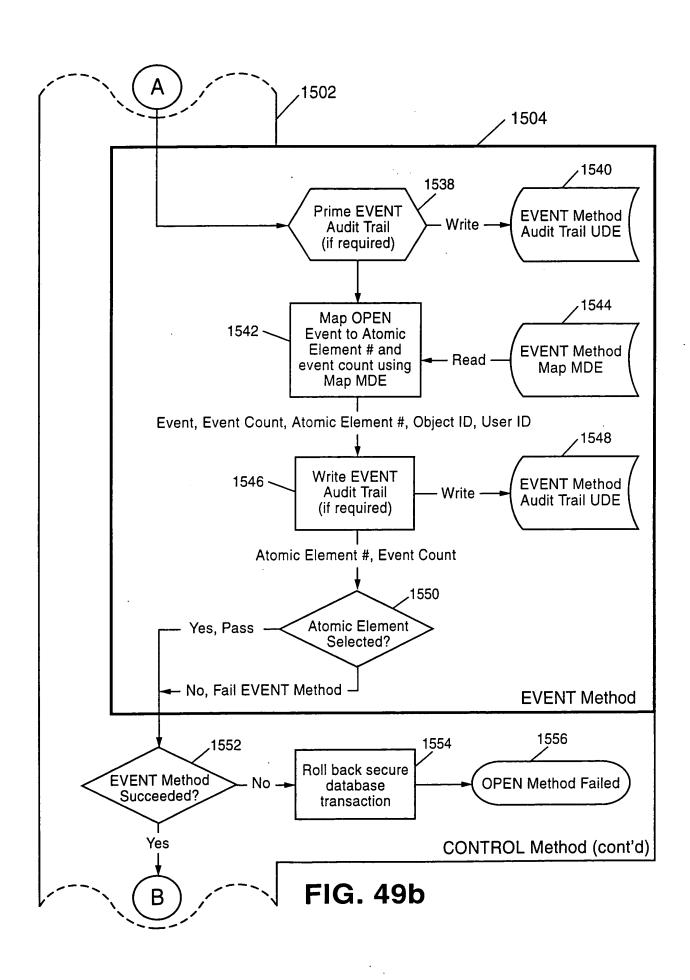




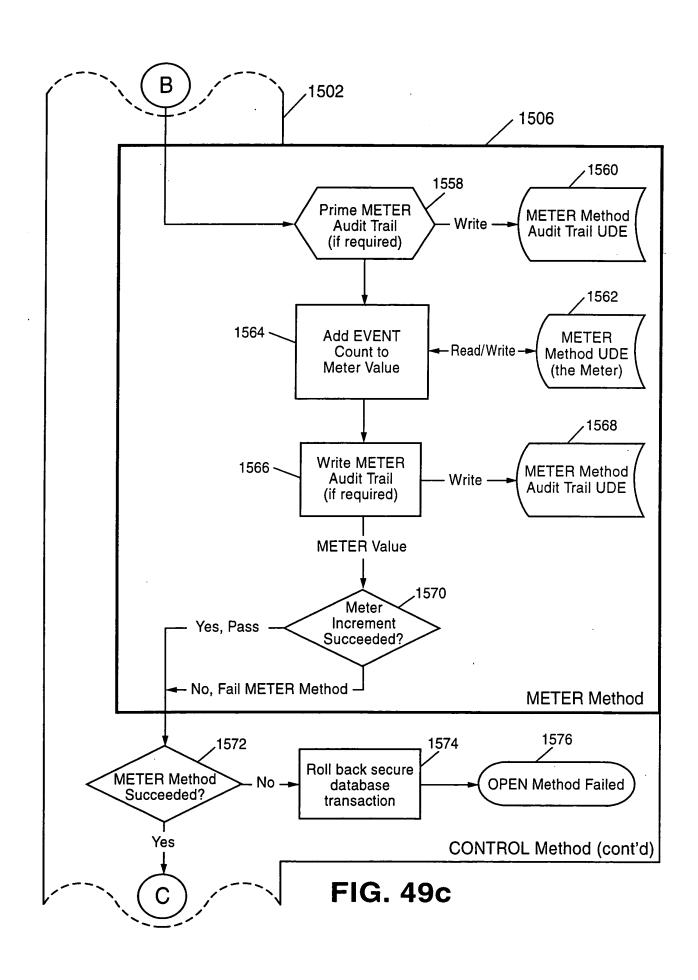


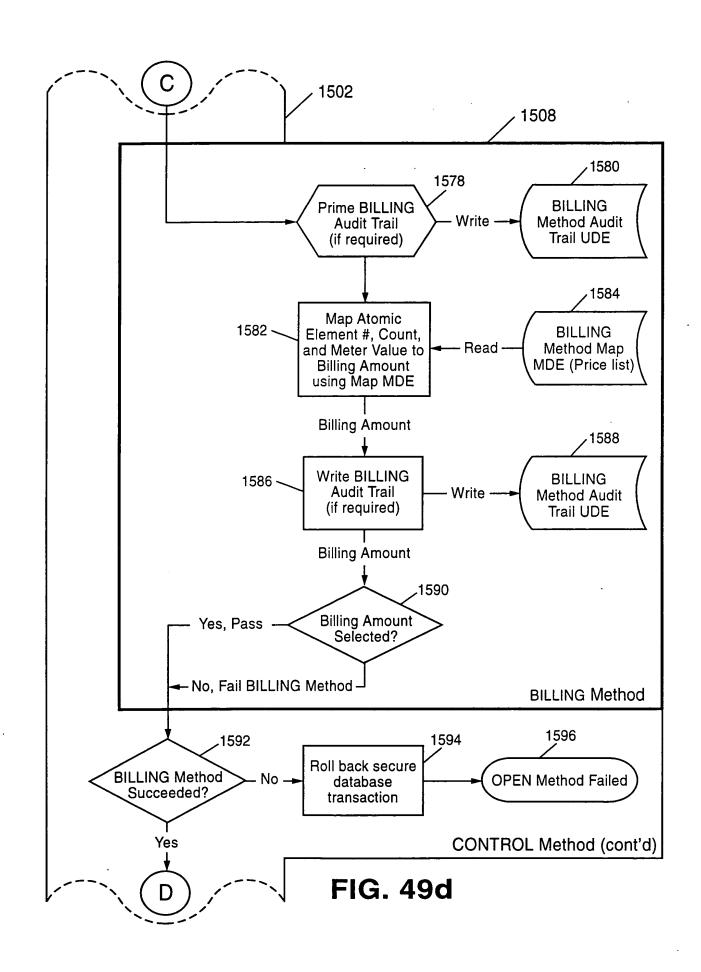


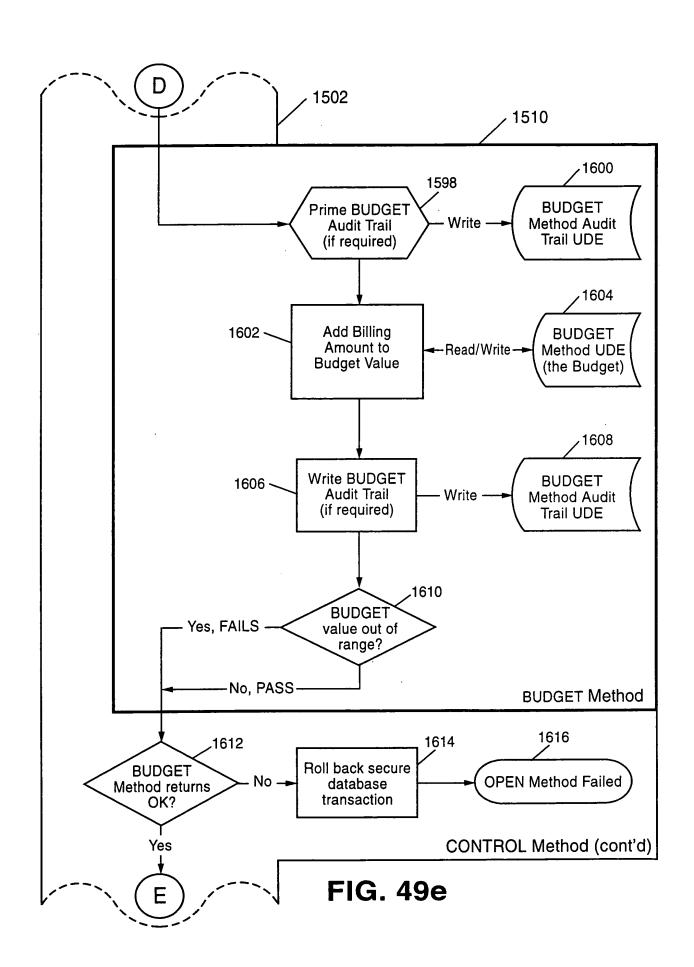


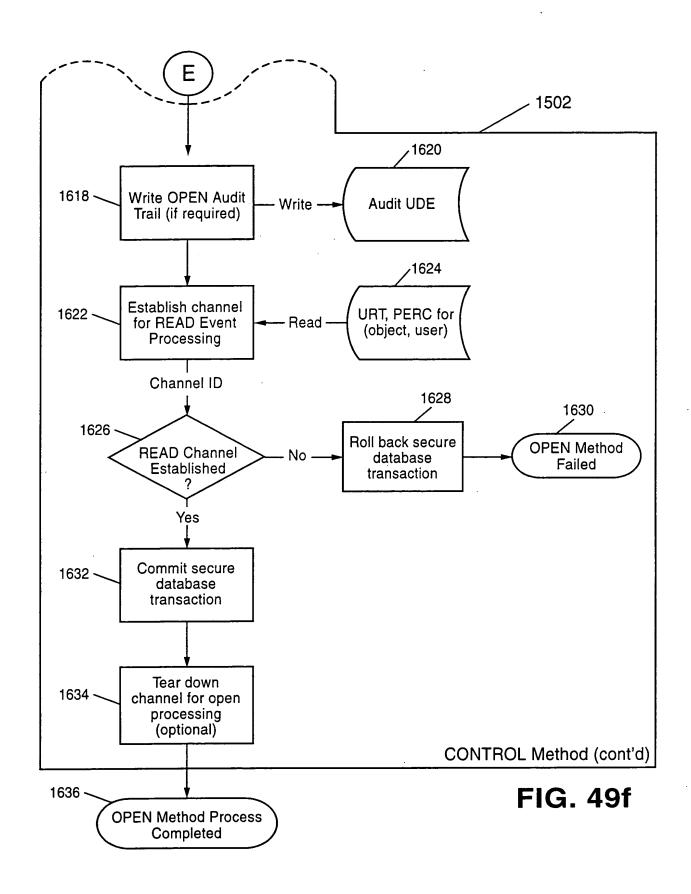


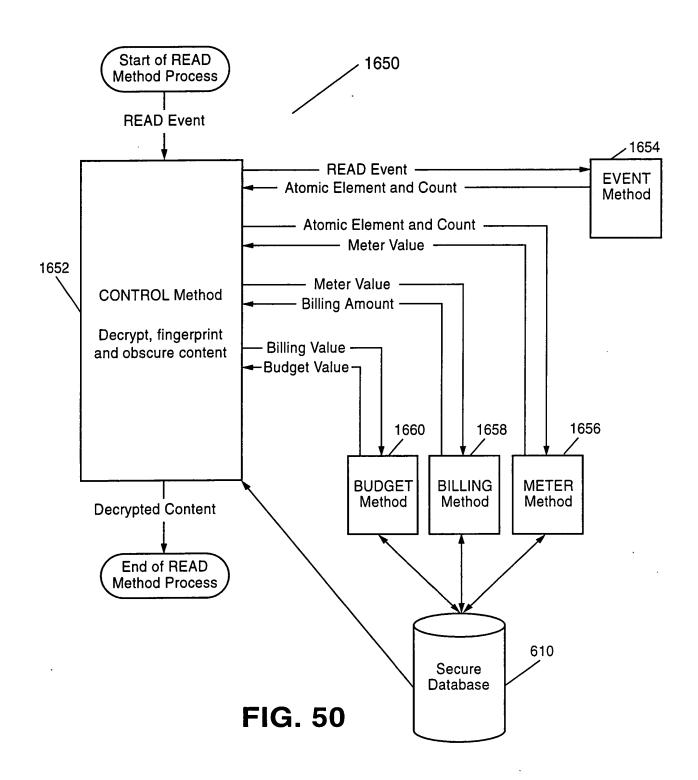
,

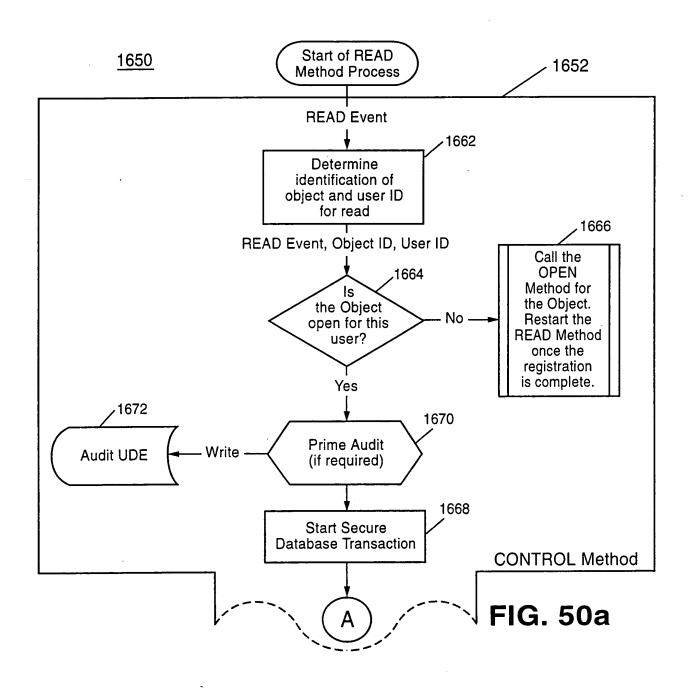


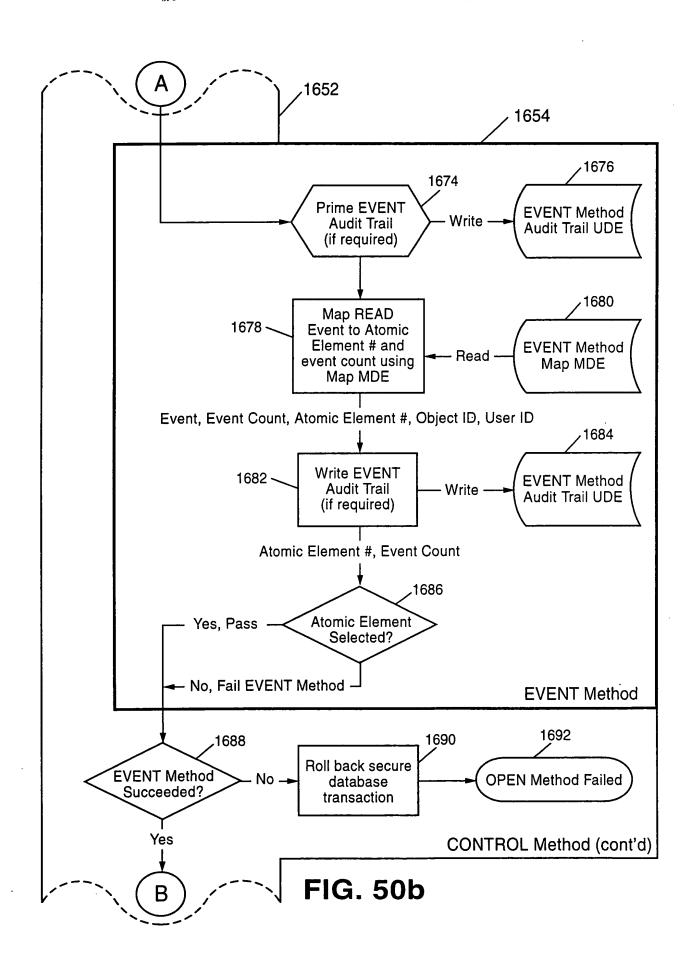


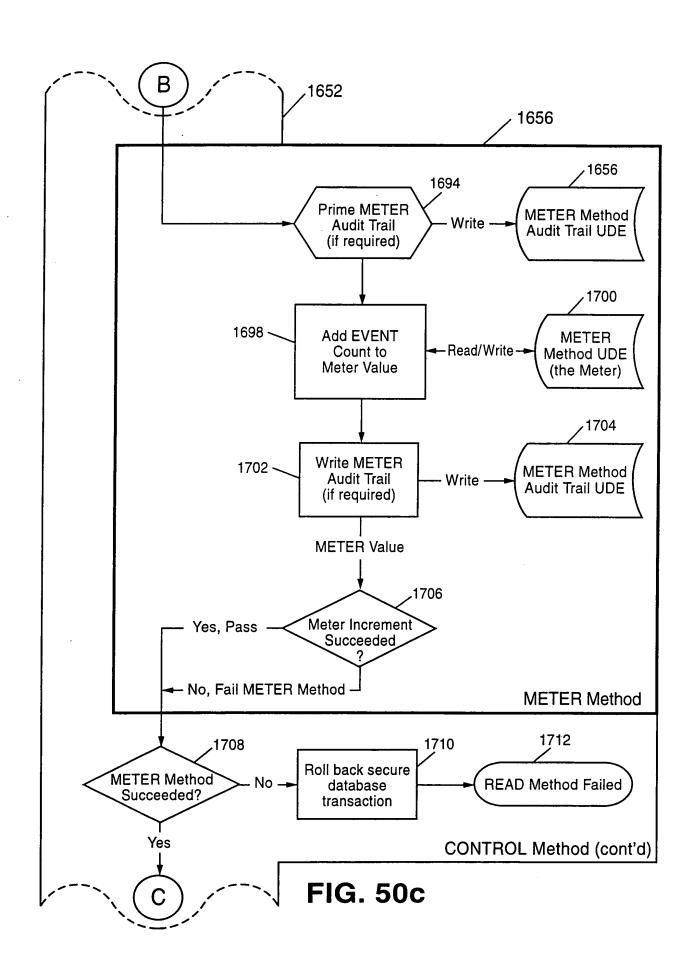


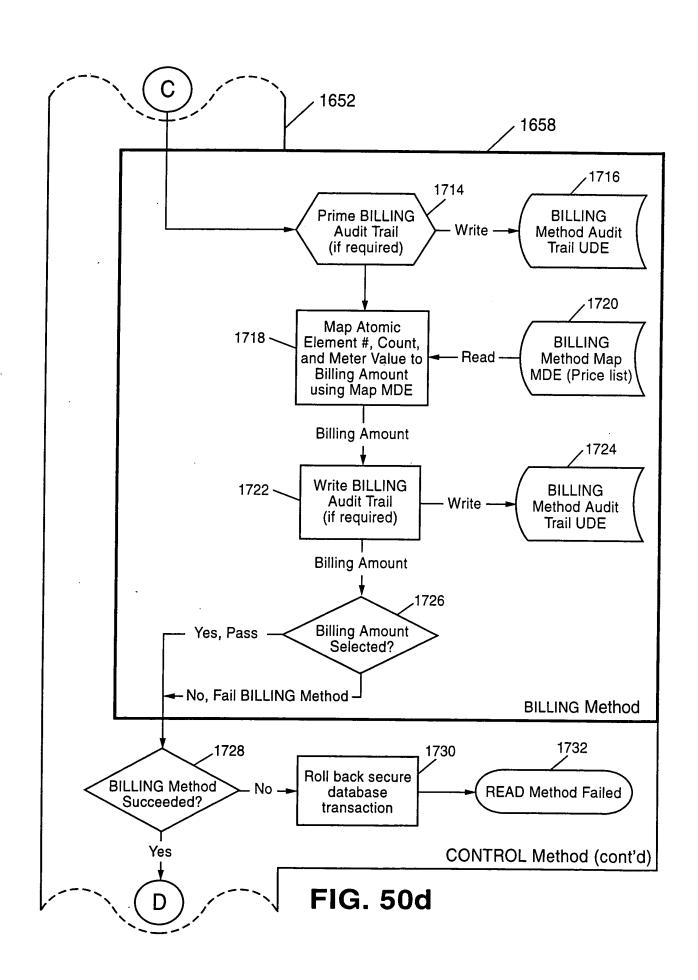


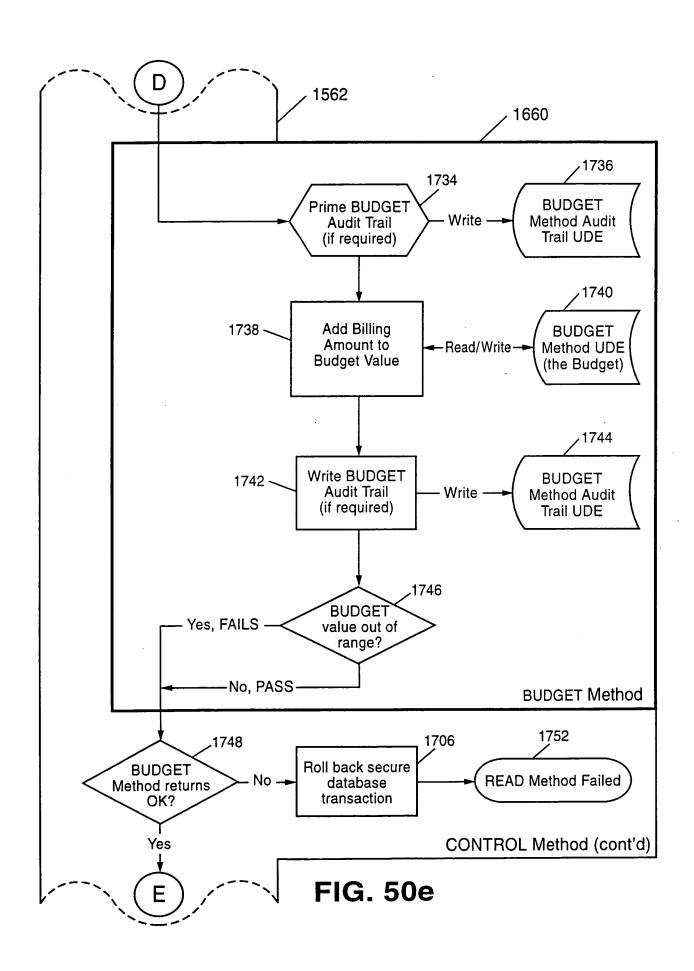


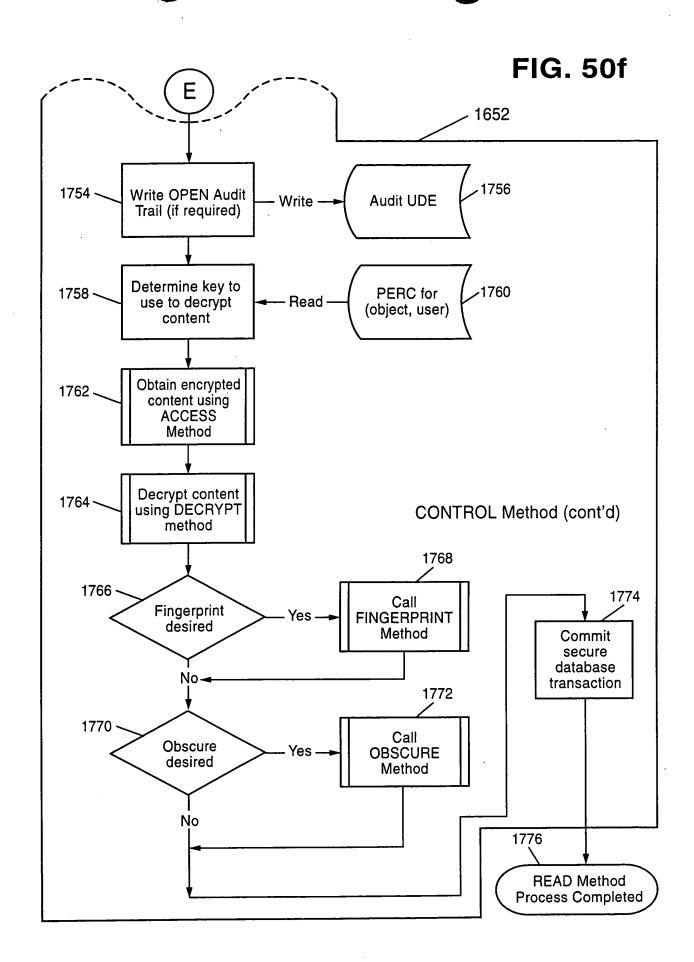


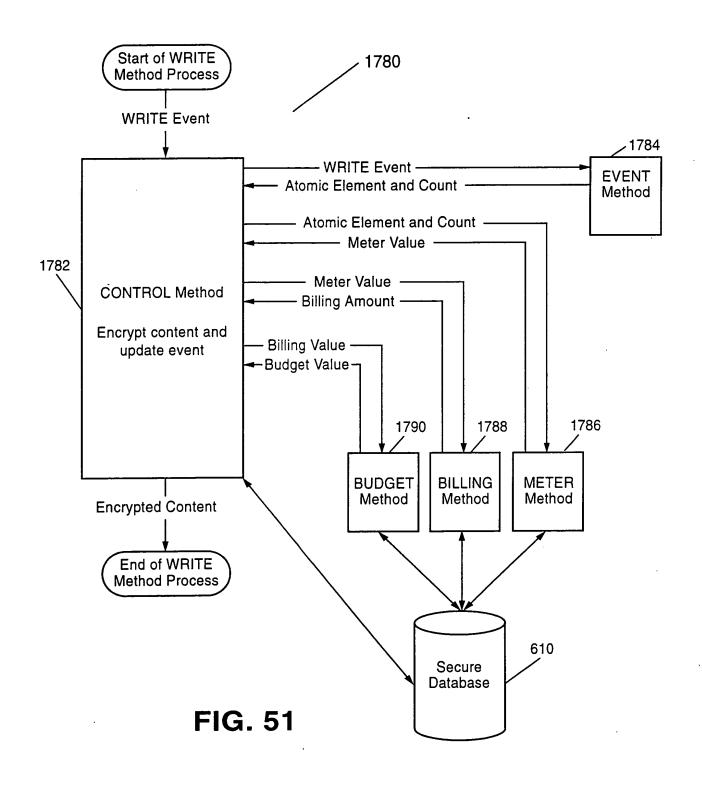


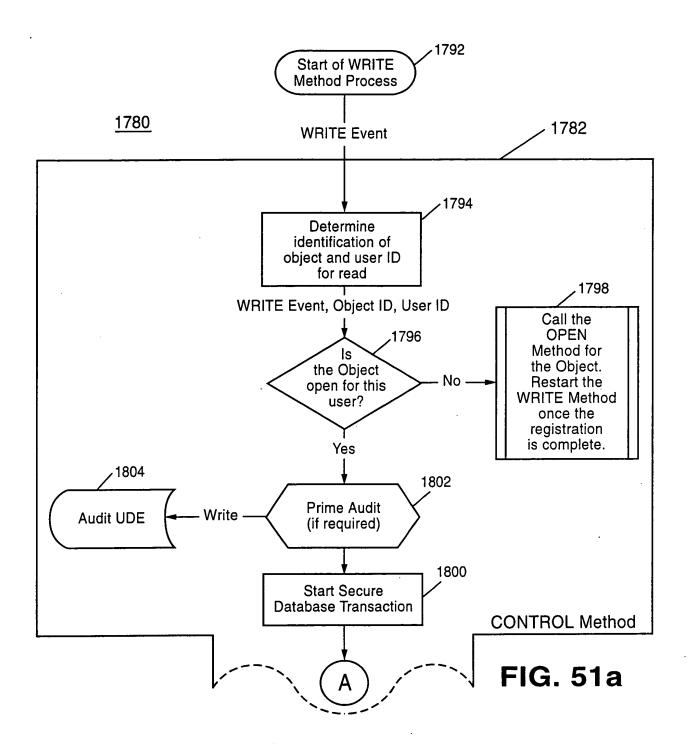


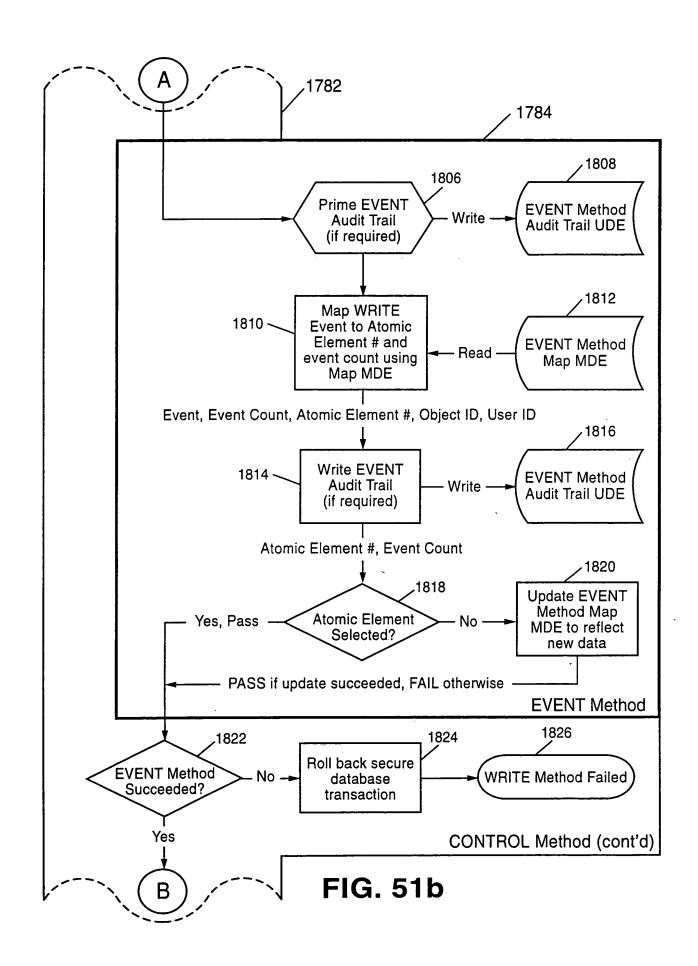


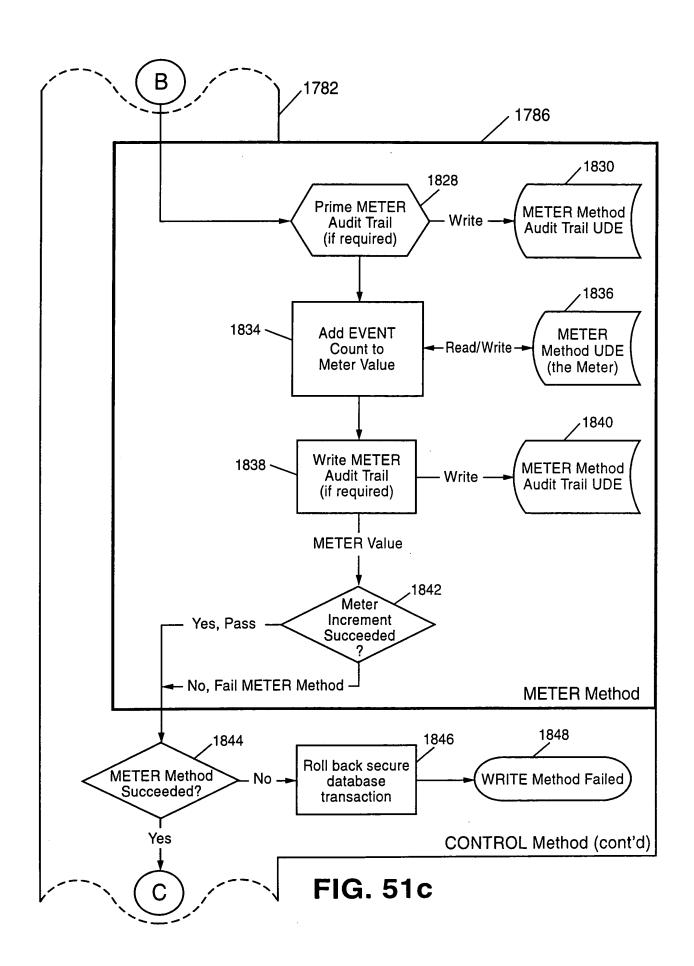


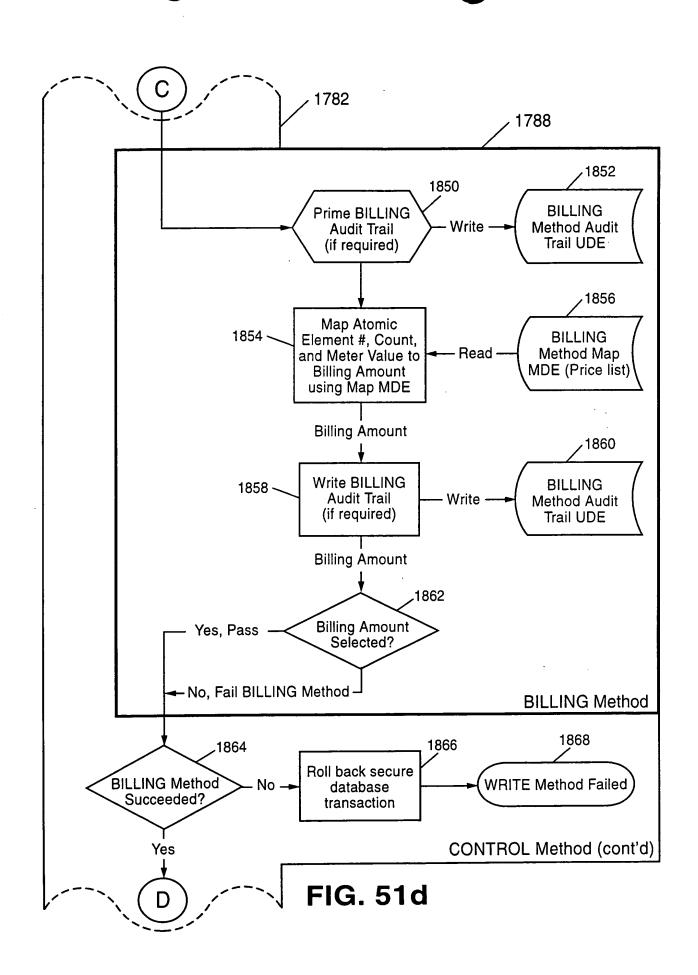


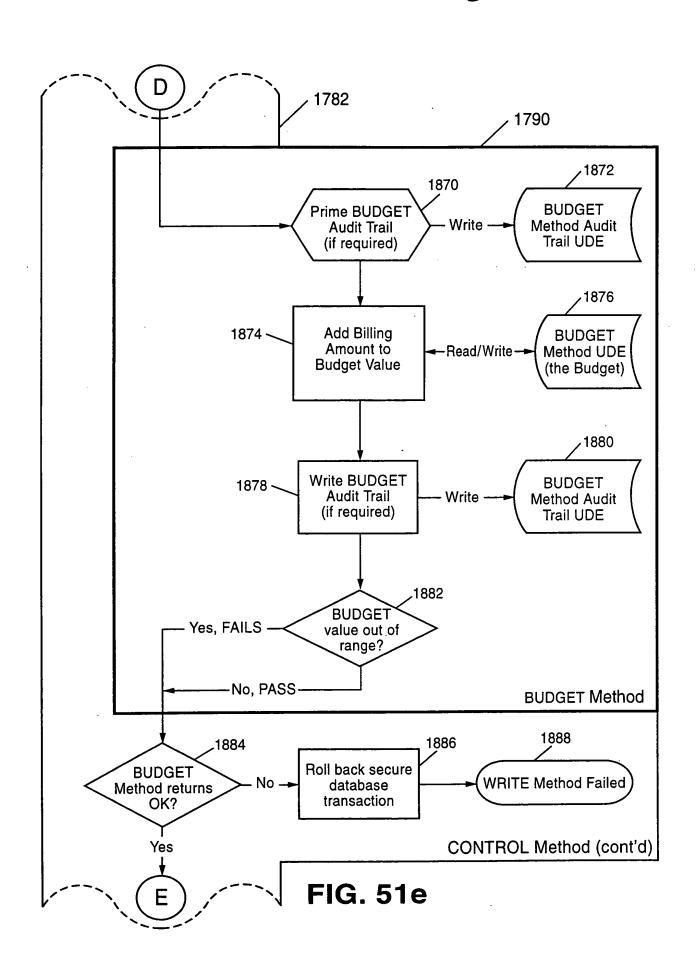


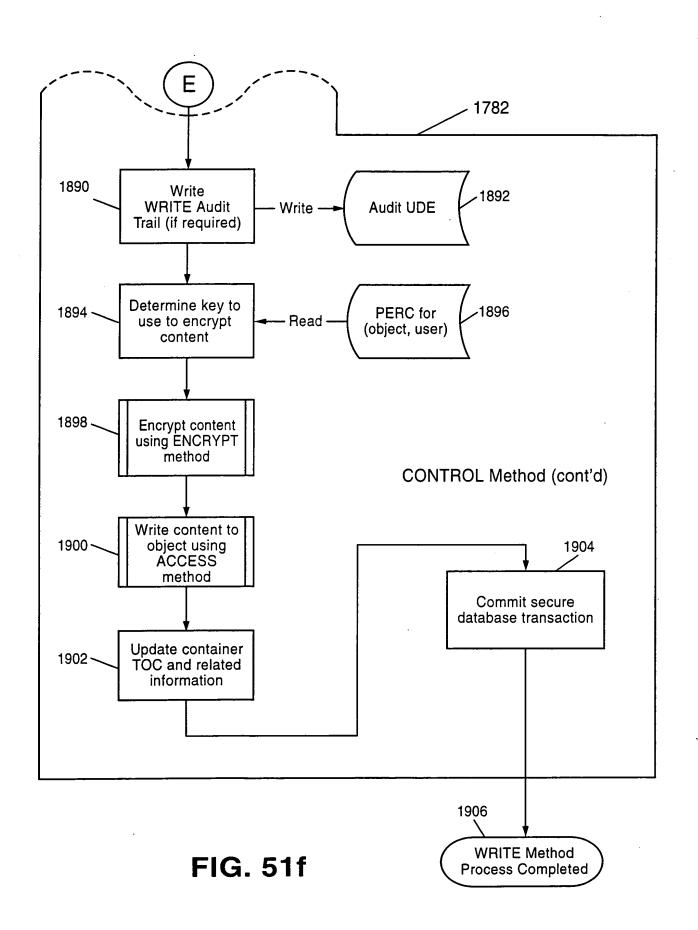


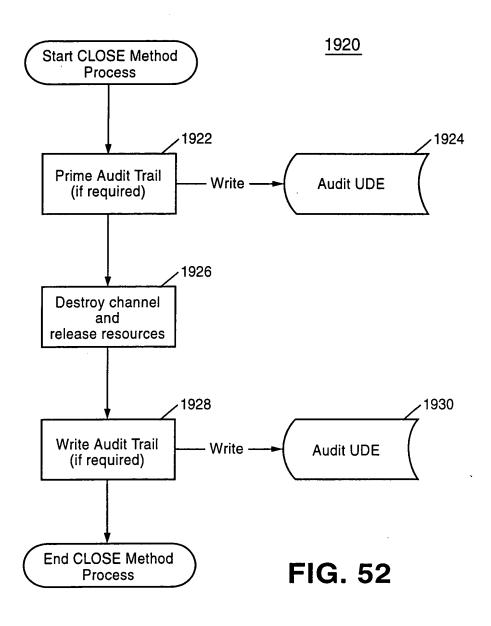


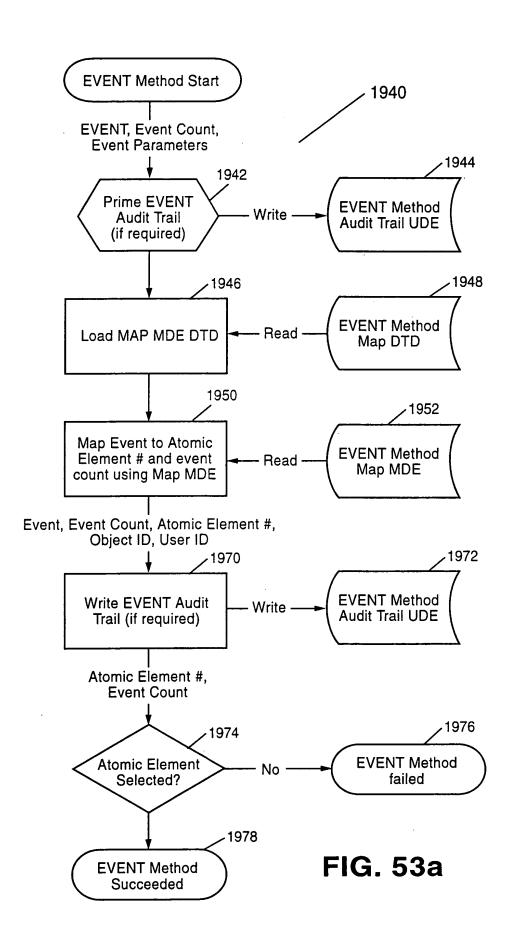


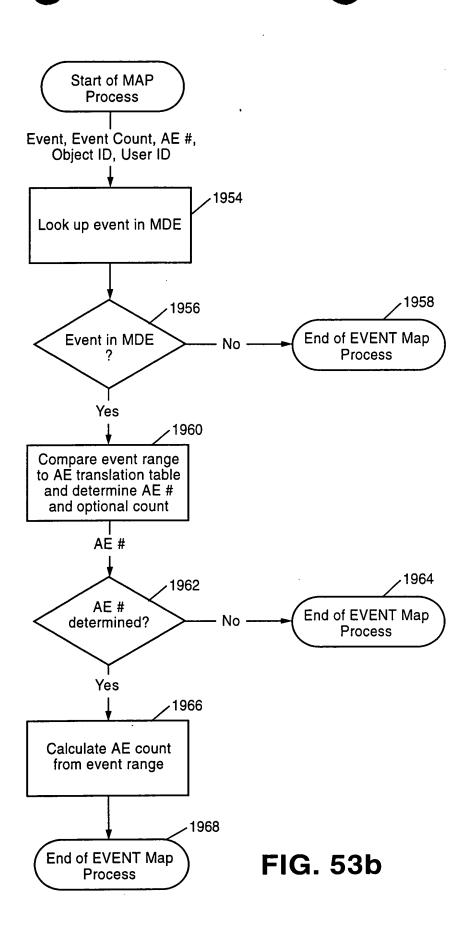


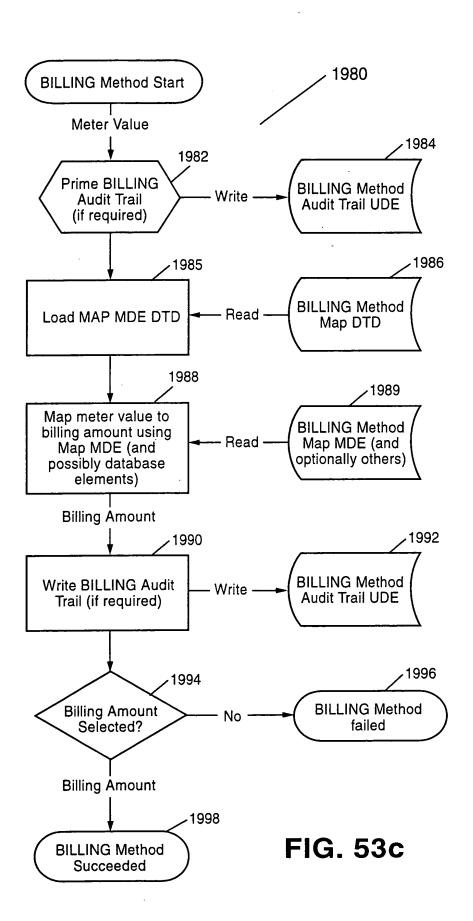


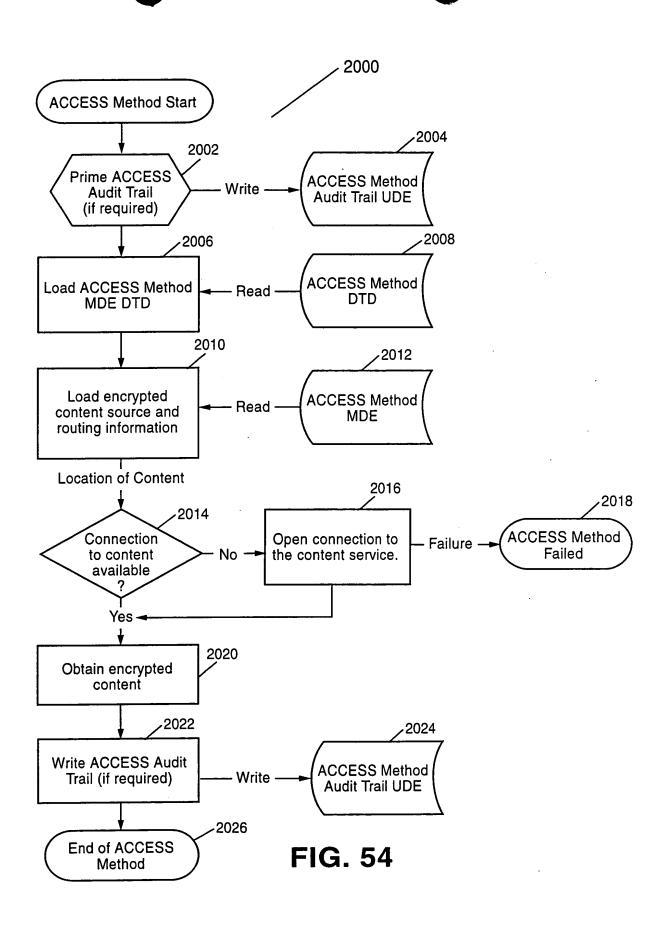


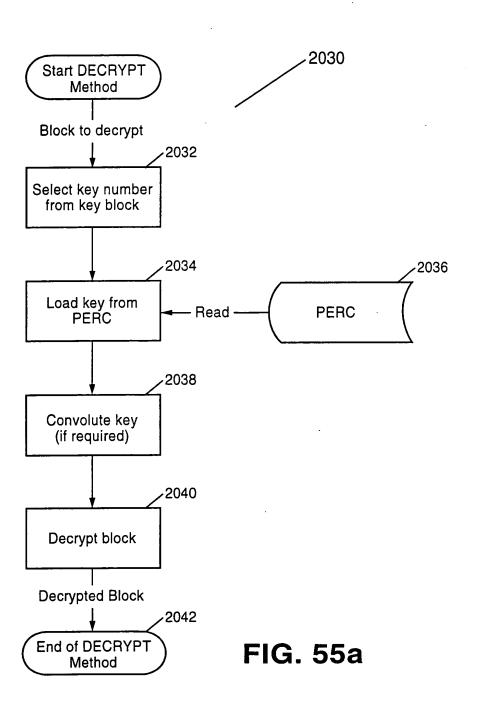


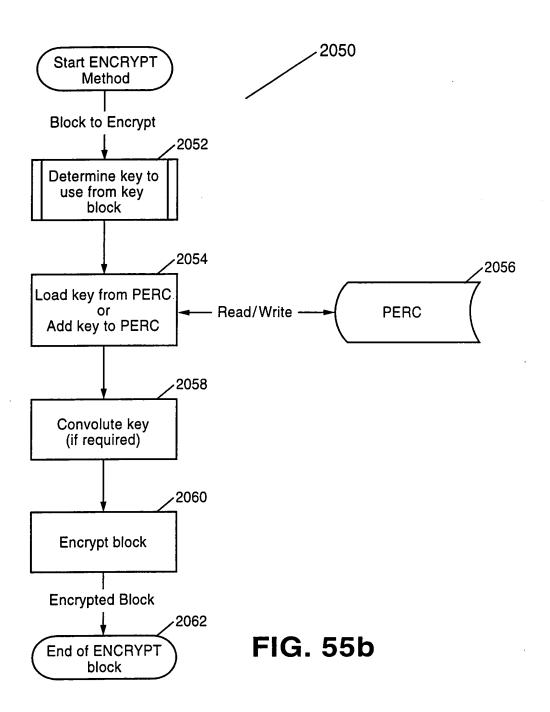


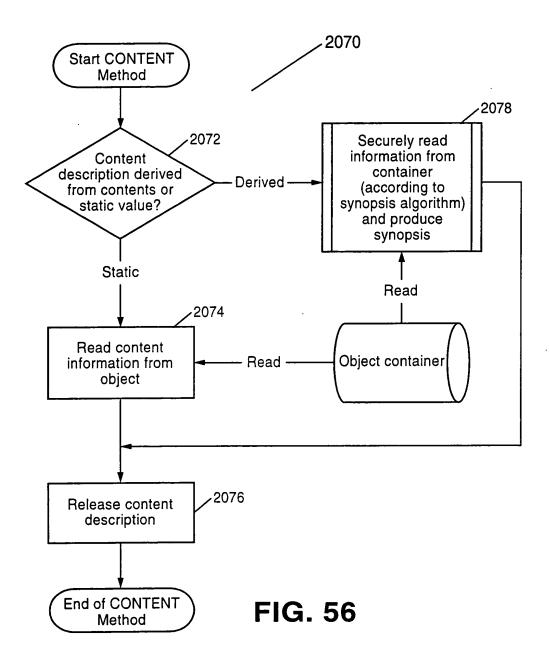


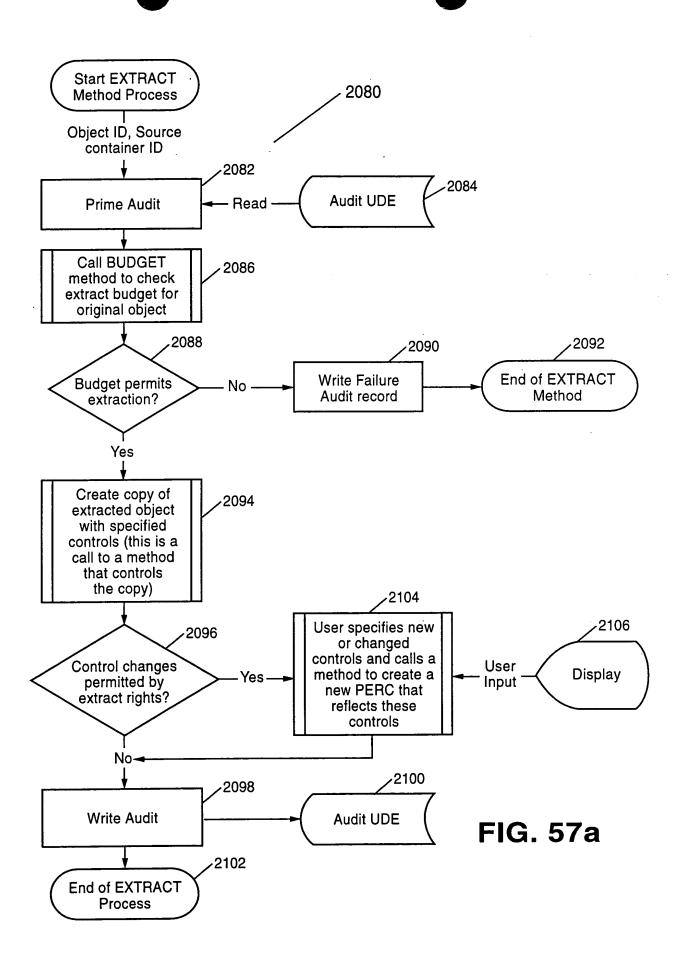


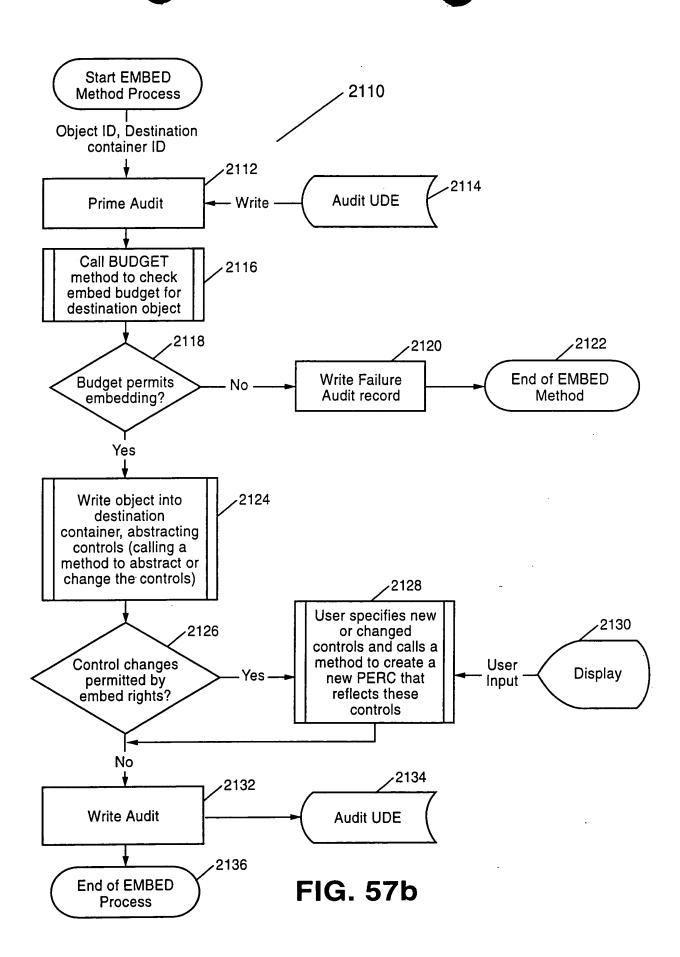


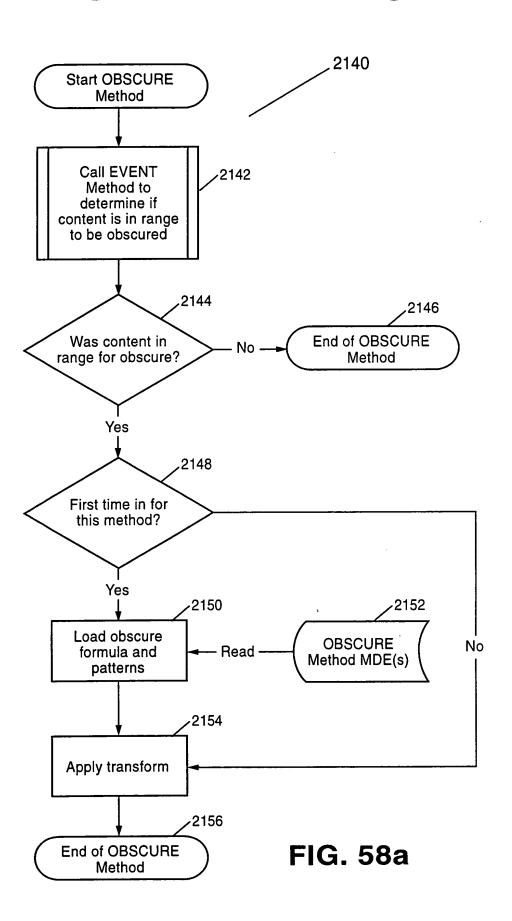


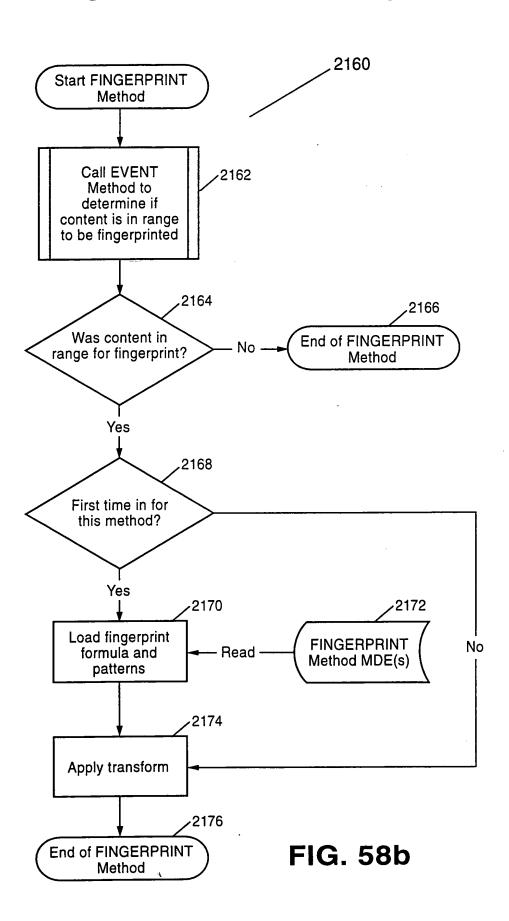












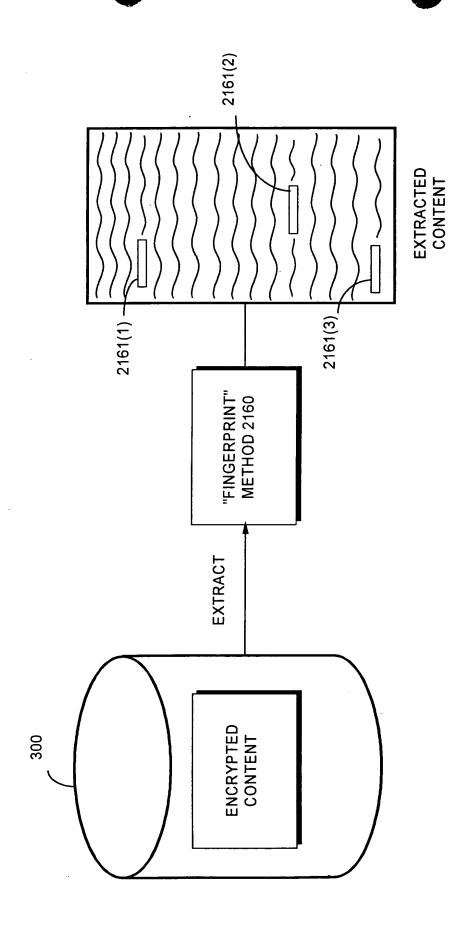
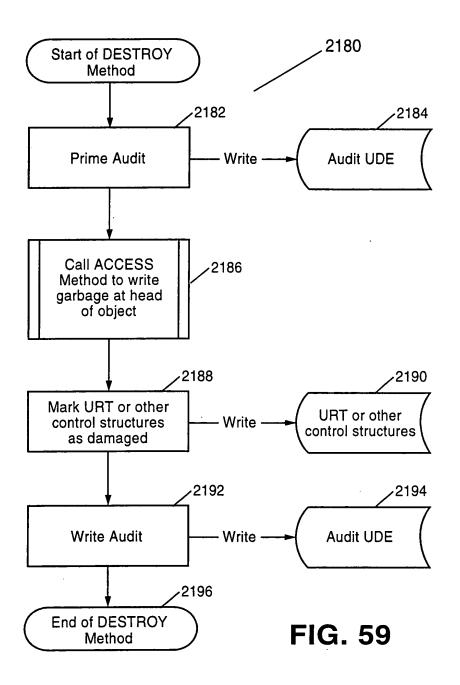
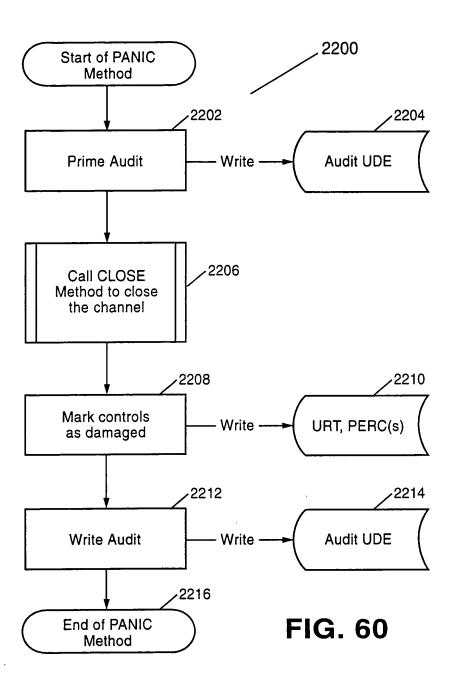


FIG. 58C





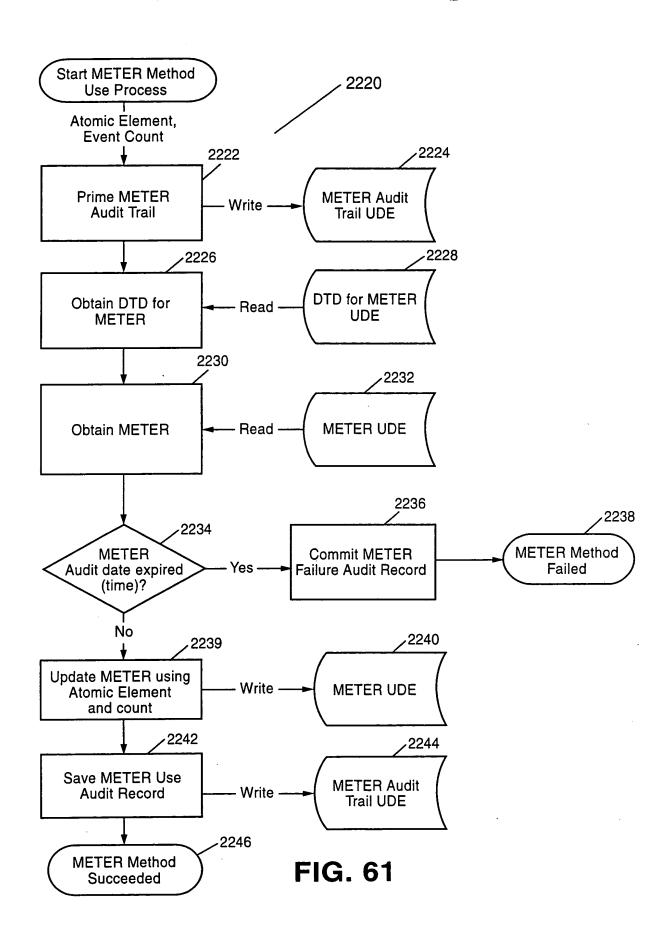
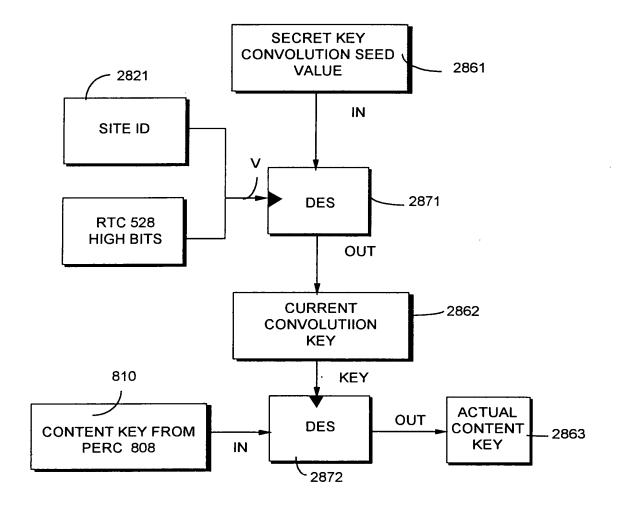
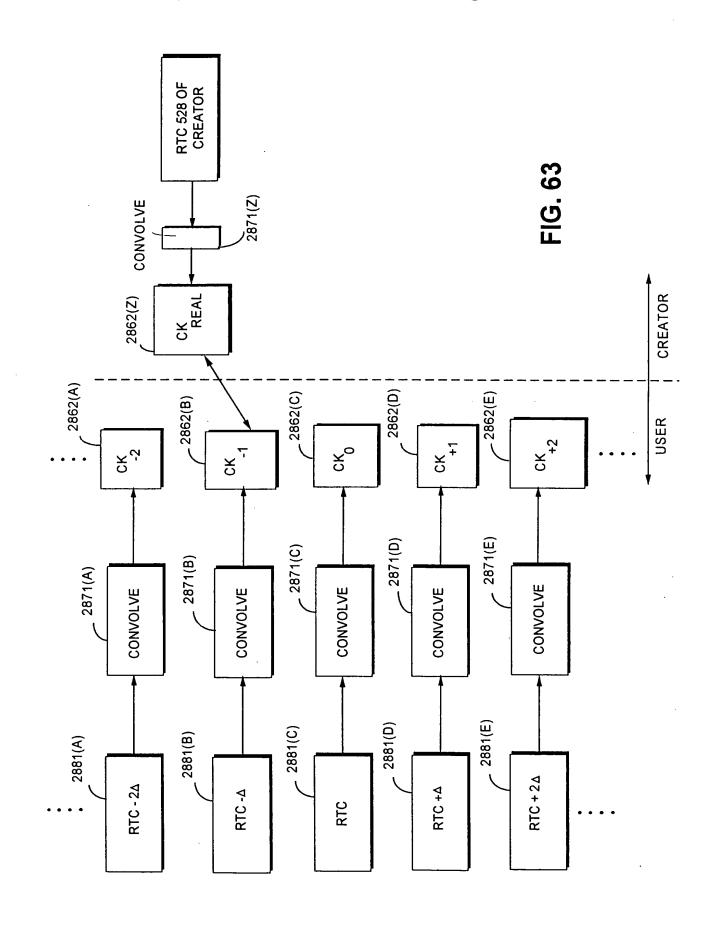
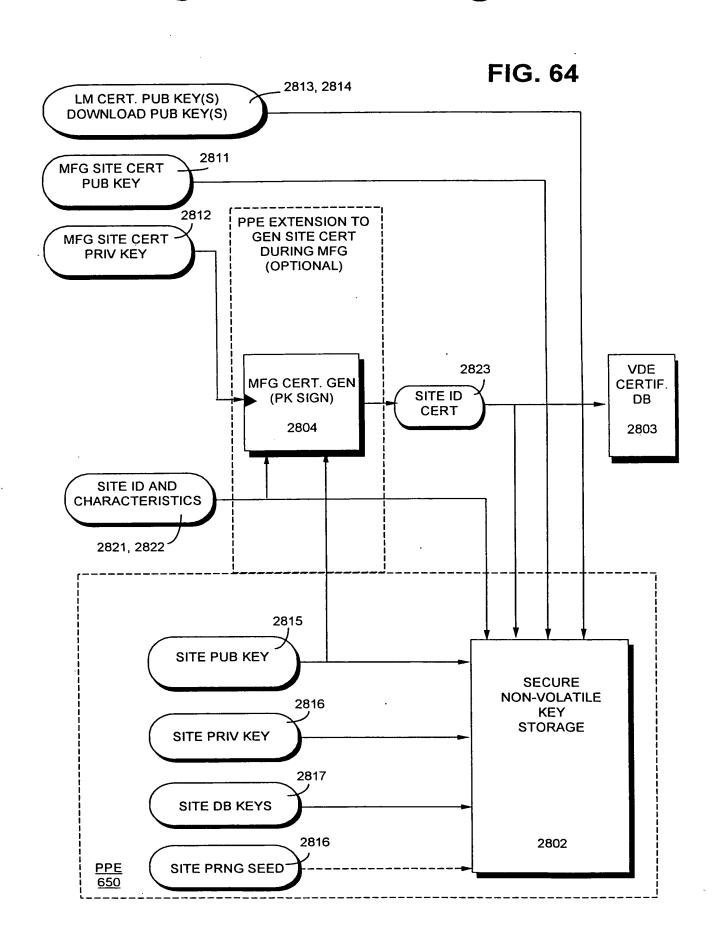
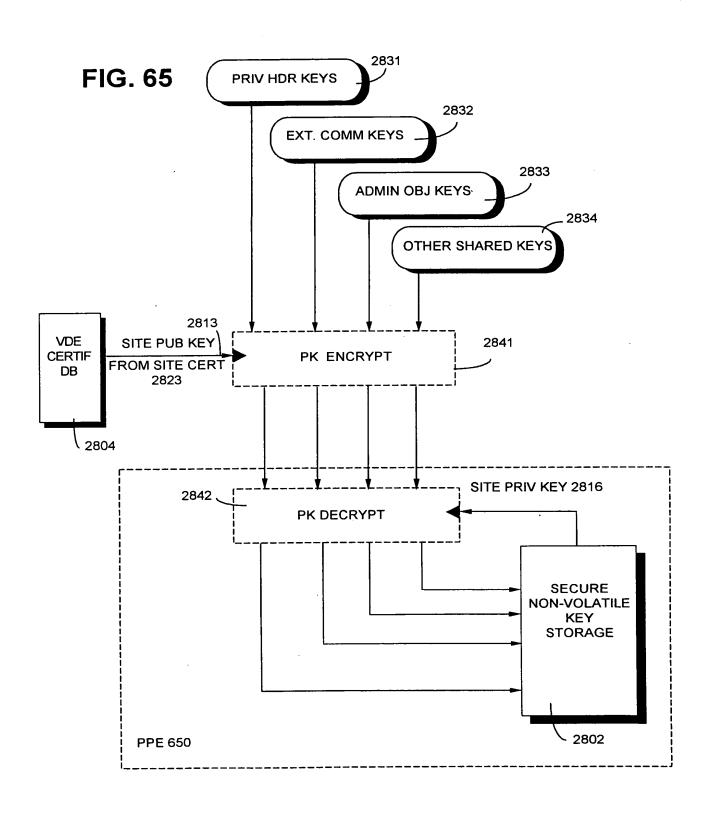


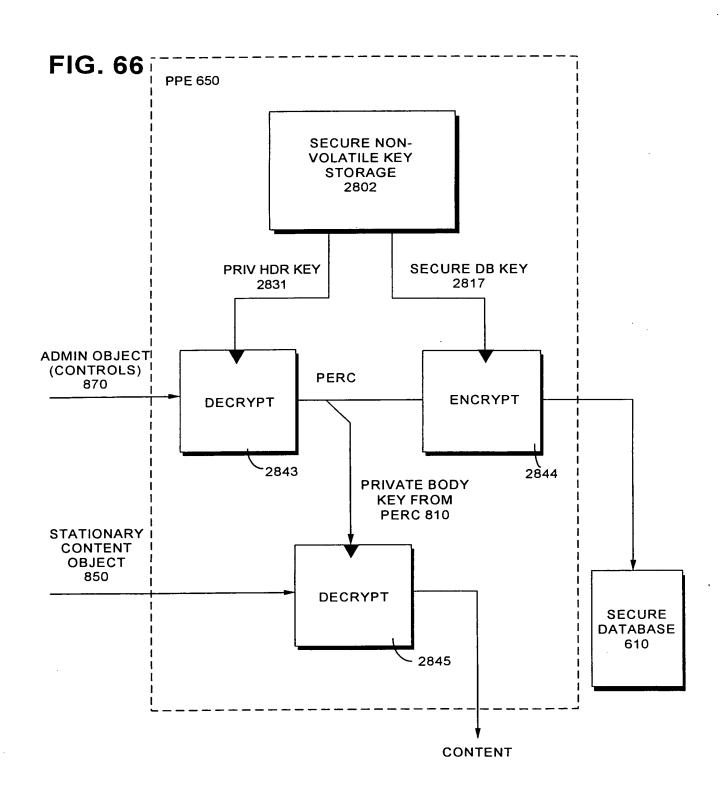
FIG. 62

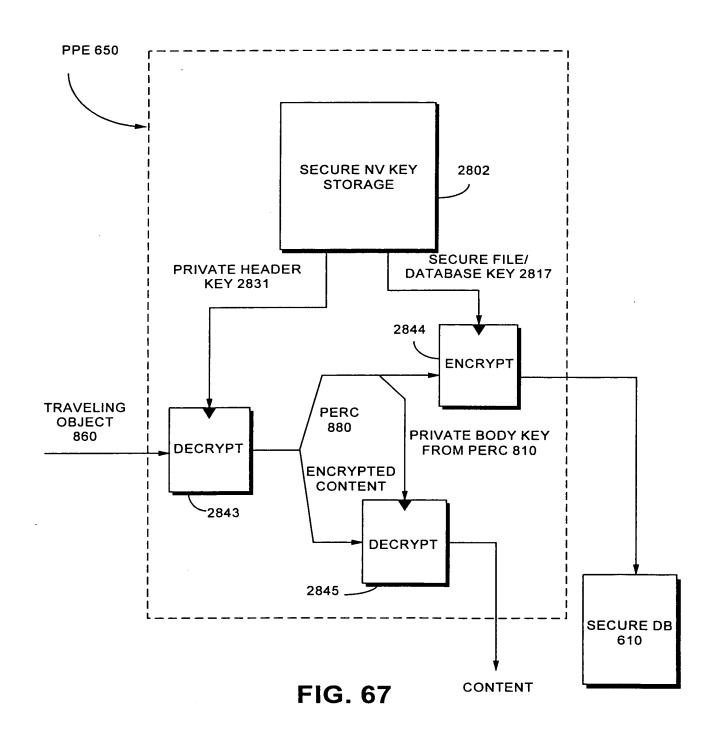


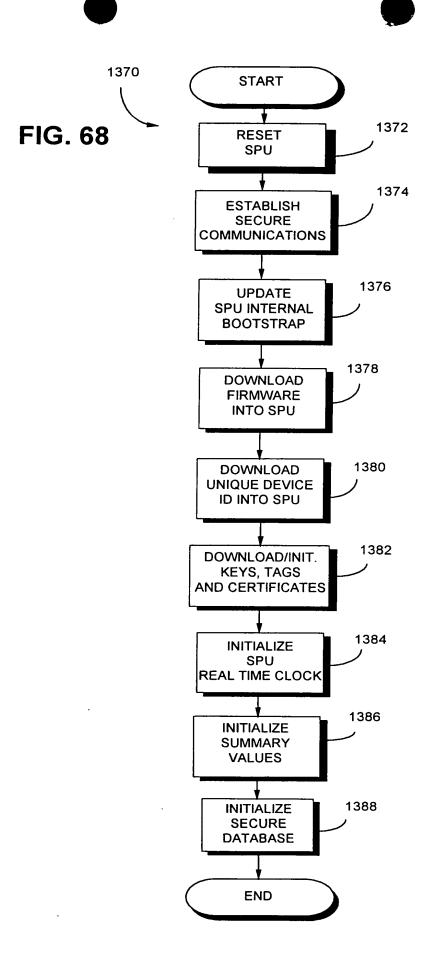


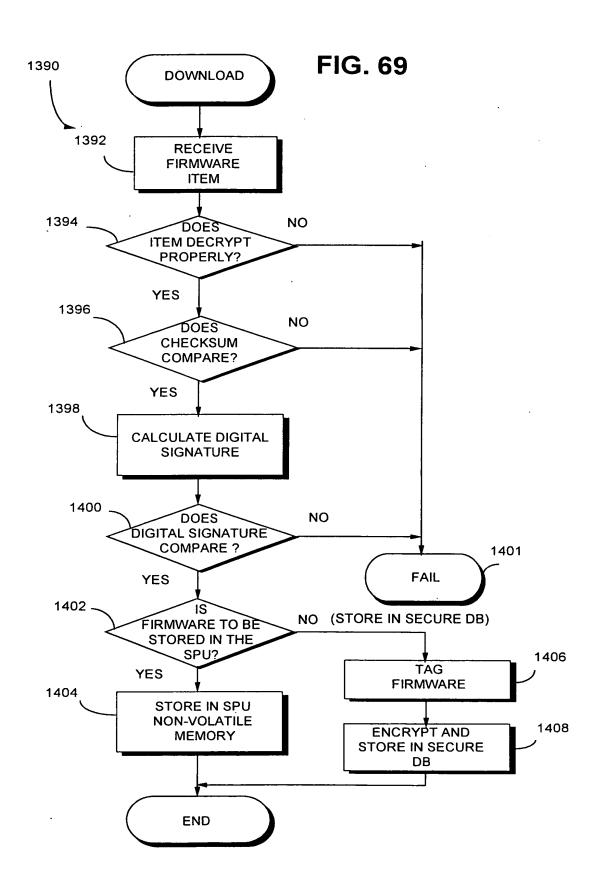


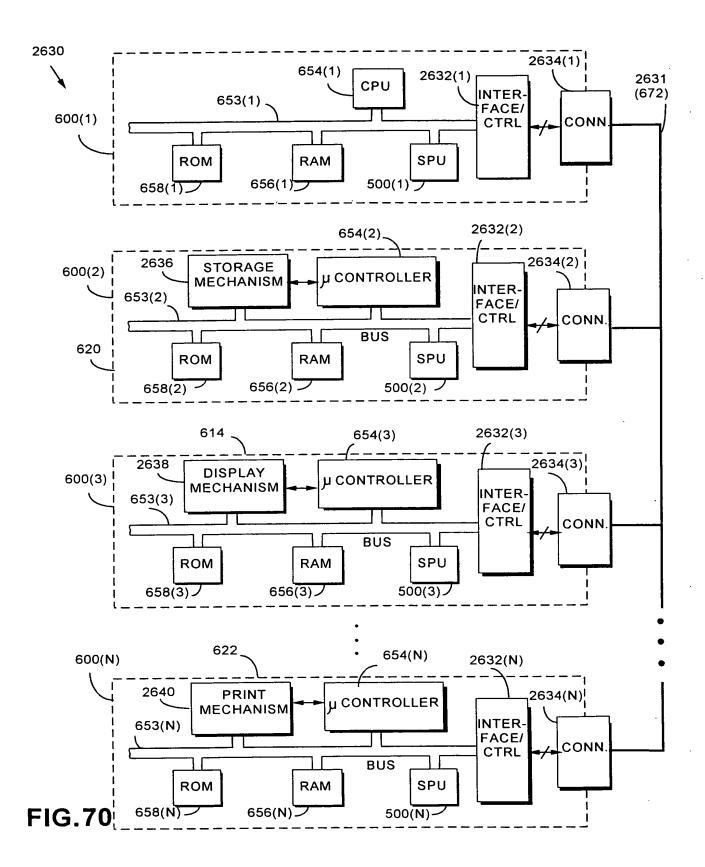


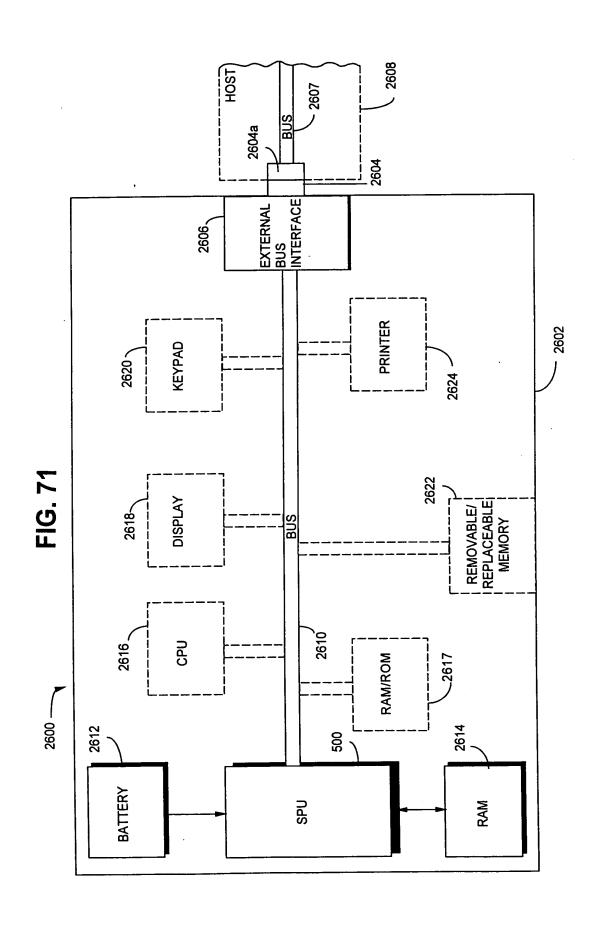












LOG IN USER INTERFACE		18	2
USER NAME:	SHEAR, V.		LOGIN
PASSWORD:	* * * *		CANCEL
LOGIN AT STARTUP		HELP	
			·

FIG. 72A

FIG. 72B

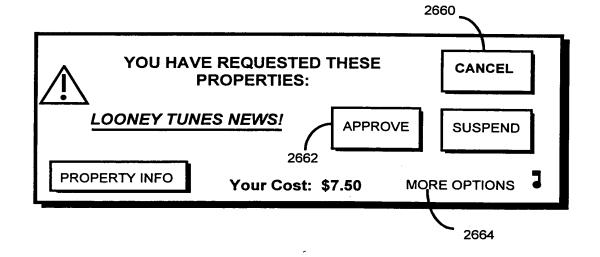


FIG. 72C

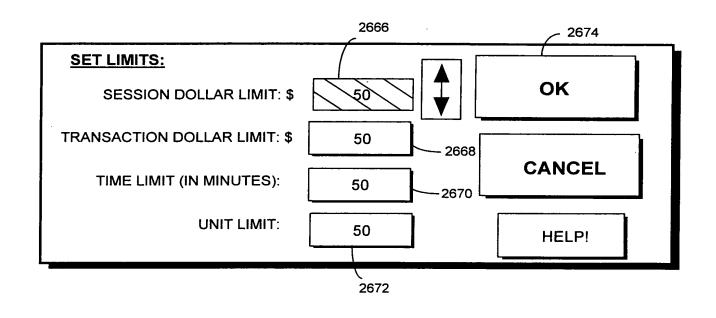
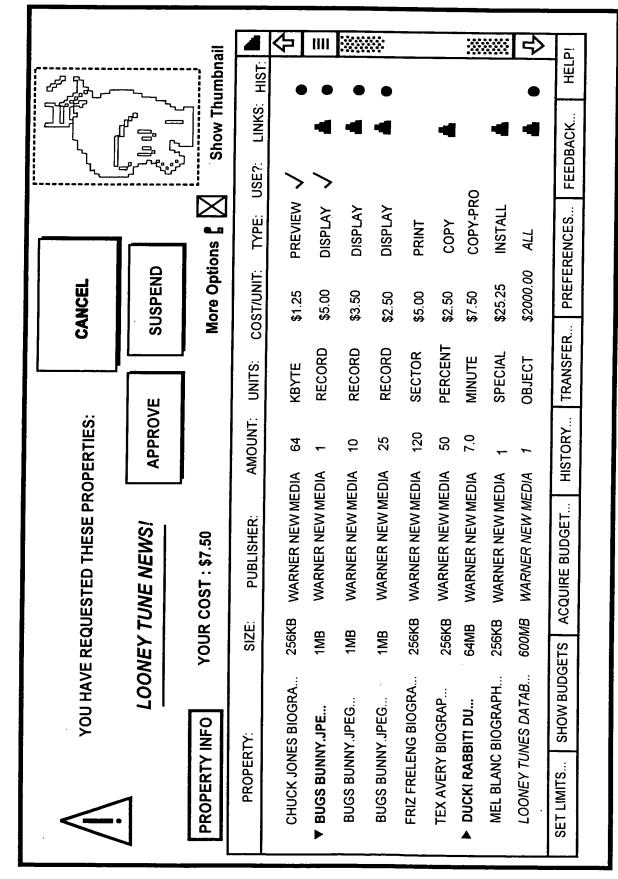
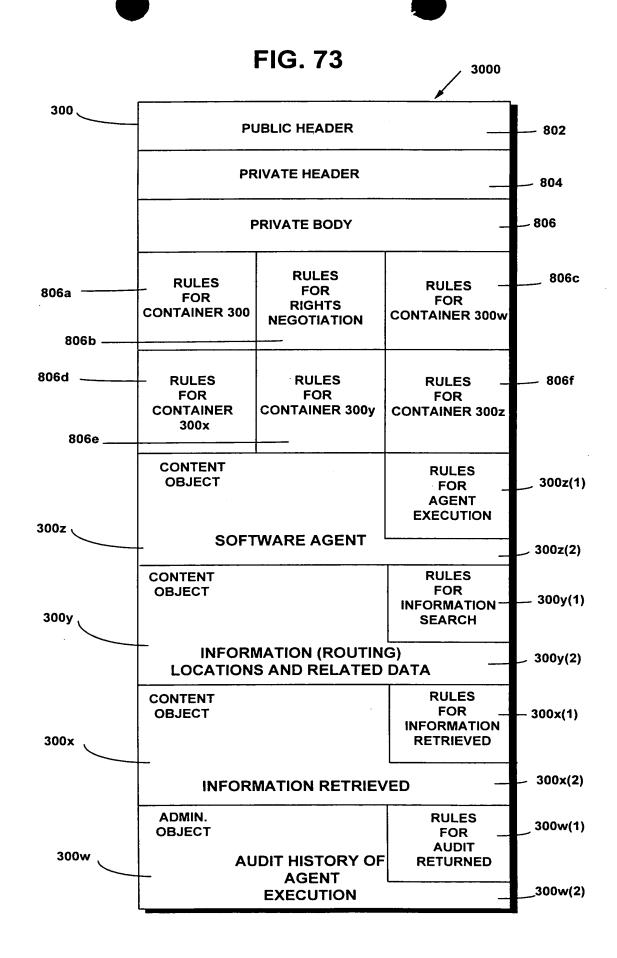


FIG. 72D





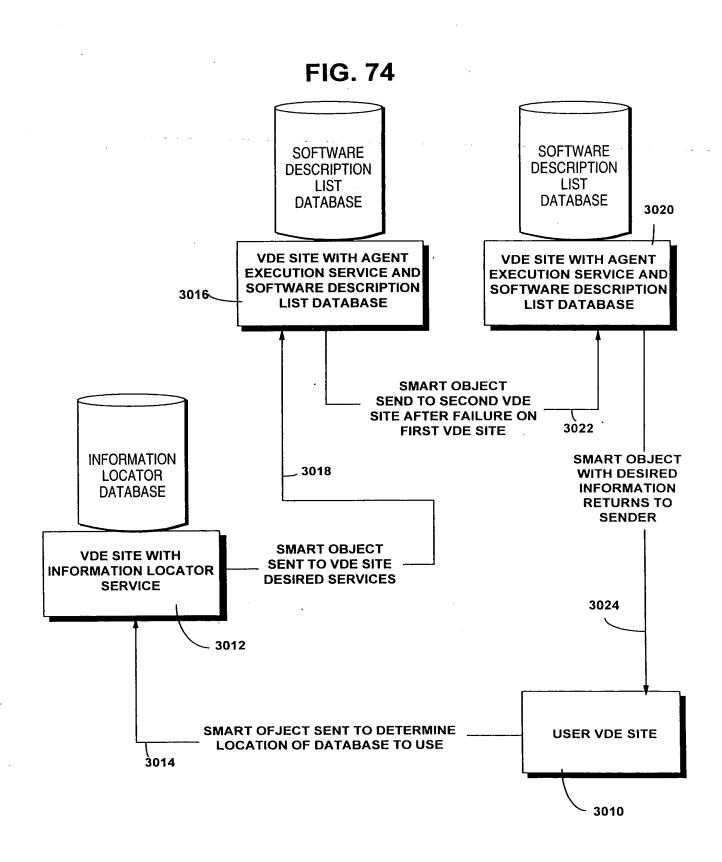


FIG. 75A

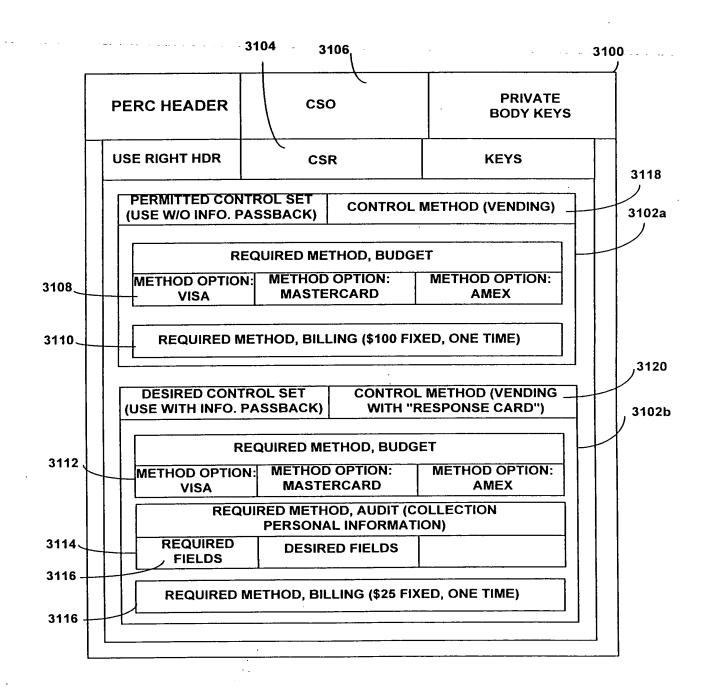


FIG. 75B

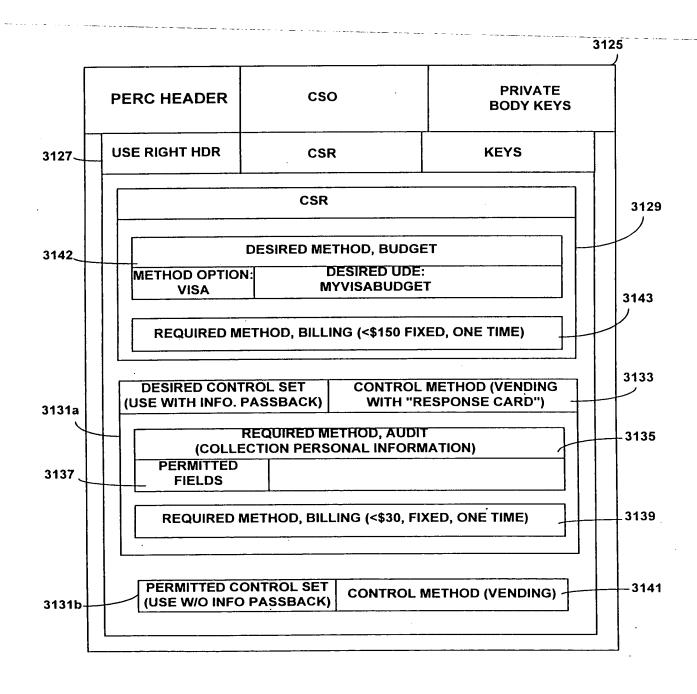


FIG. 75C

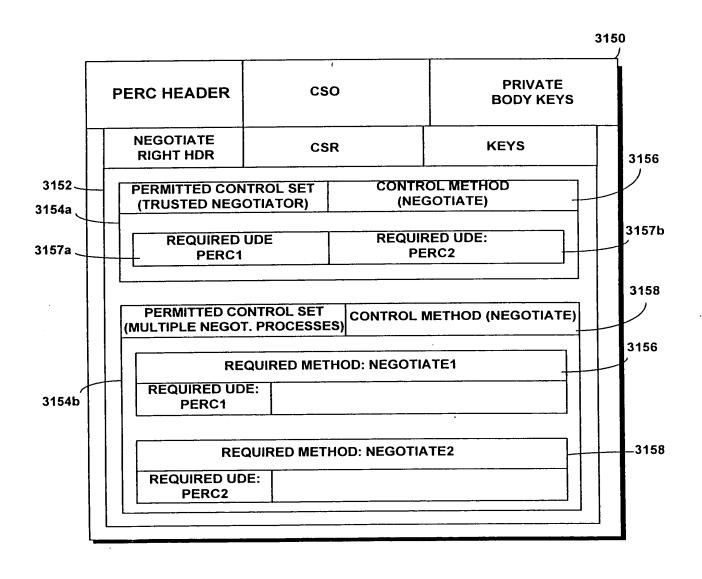
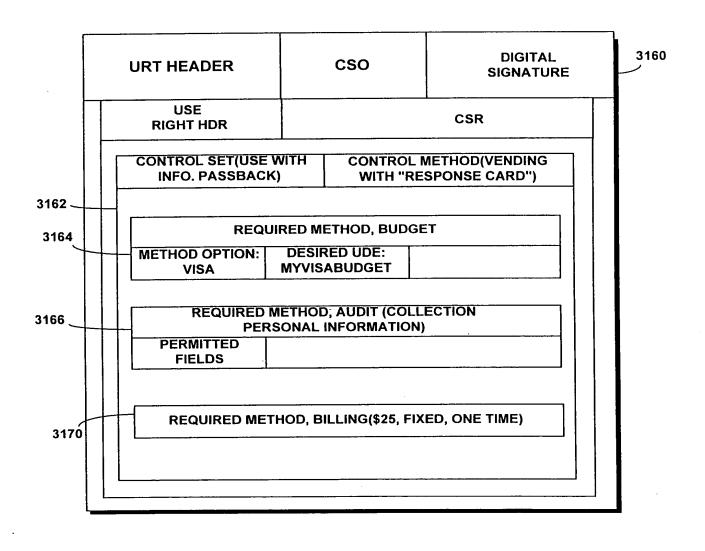
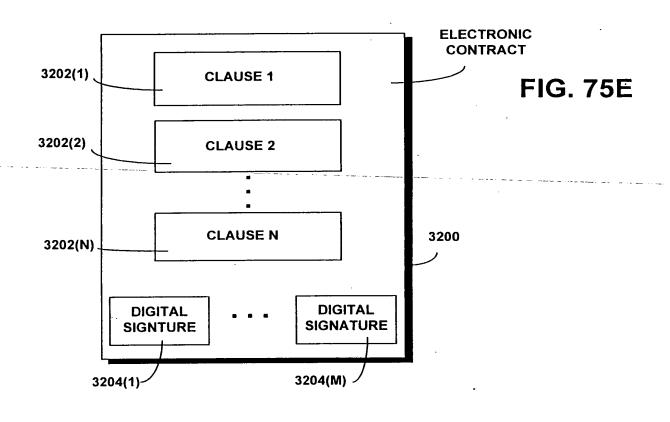


FIG. 75D





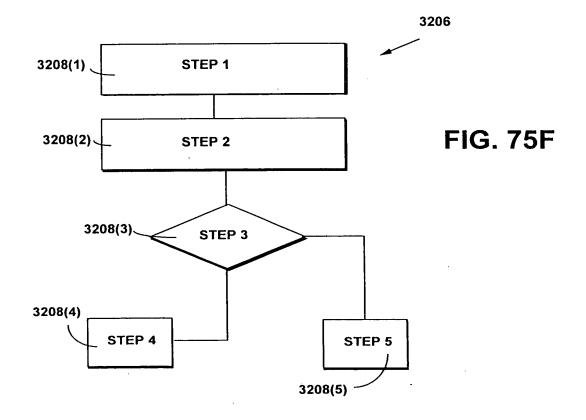


FIG. 76A

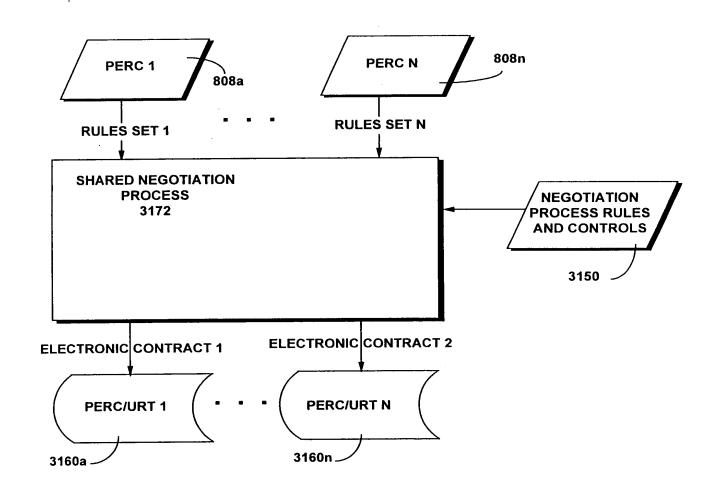
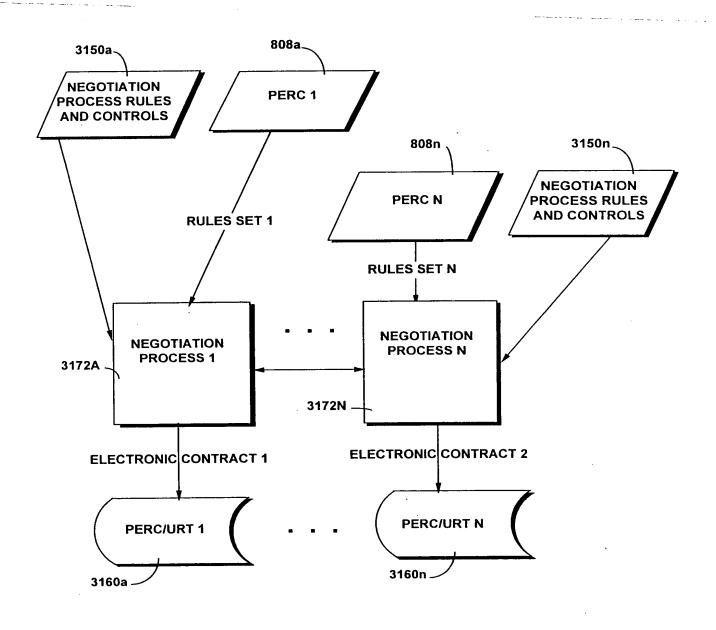
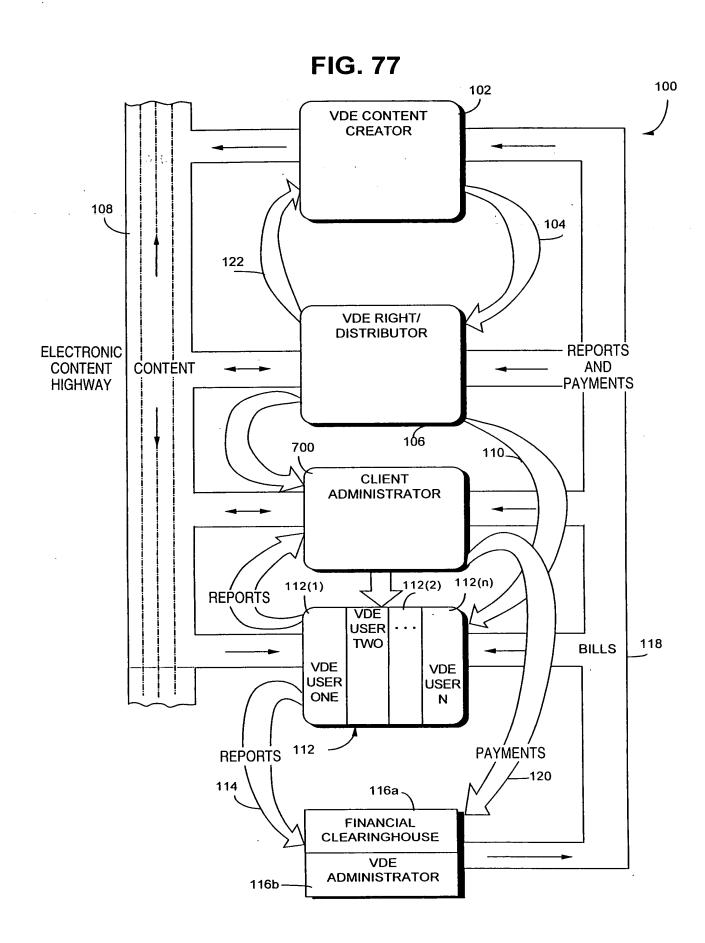
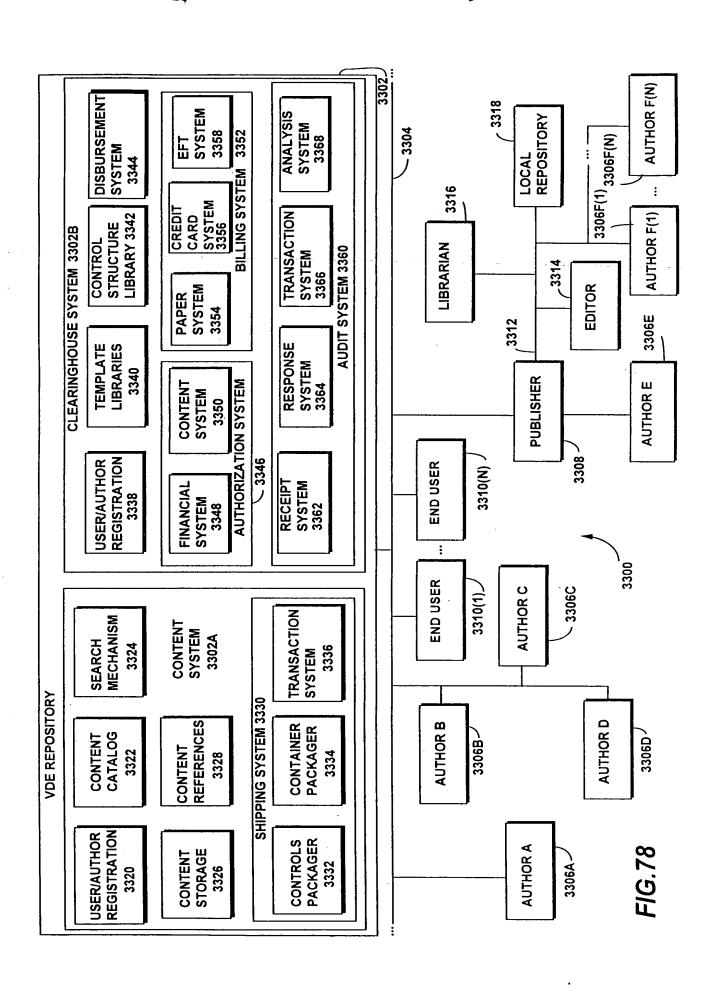
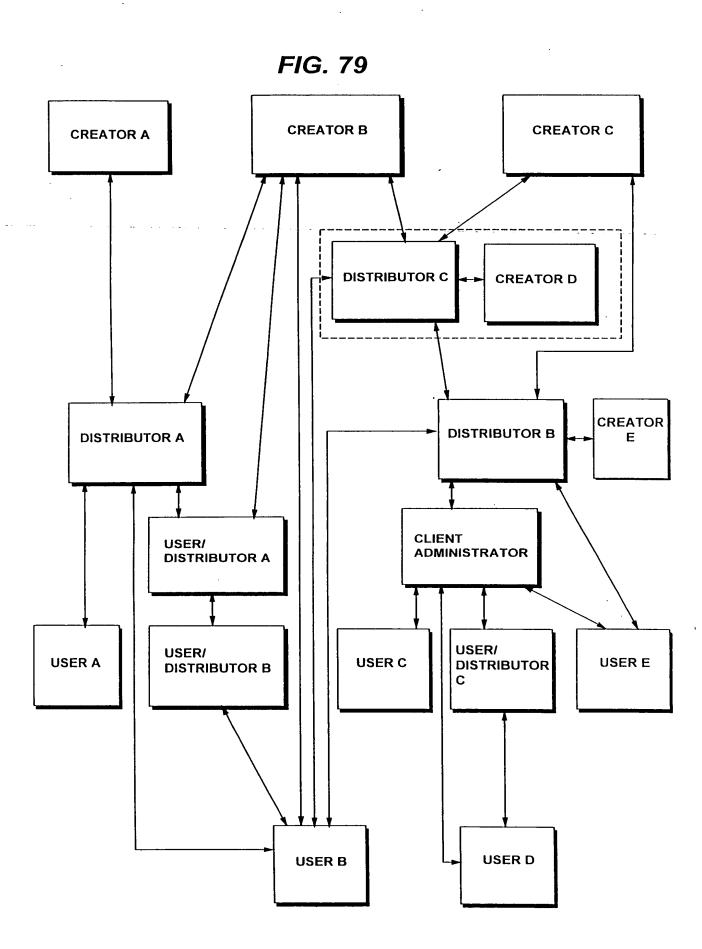


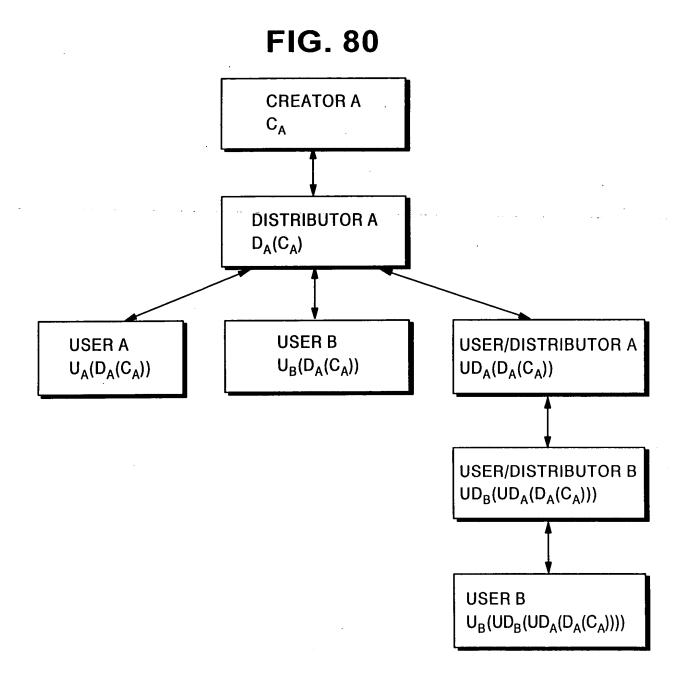
FIG. 76B

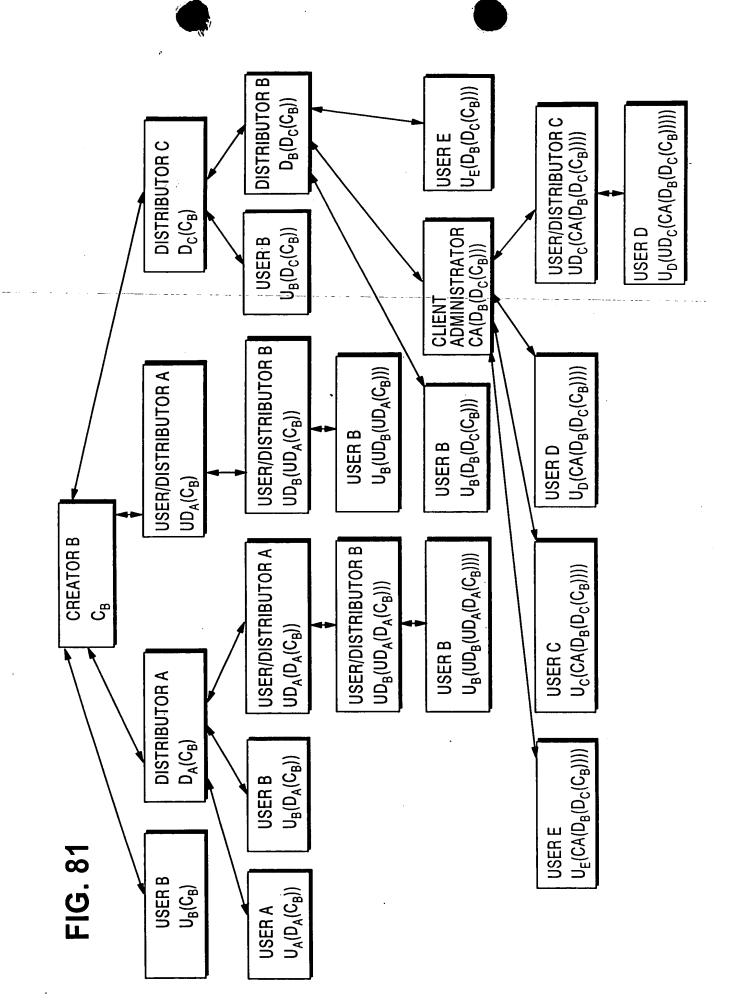


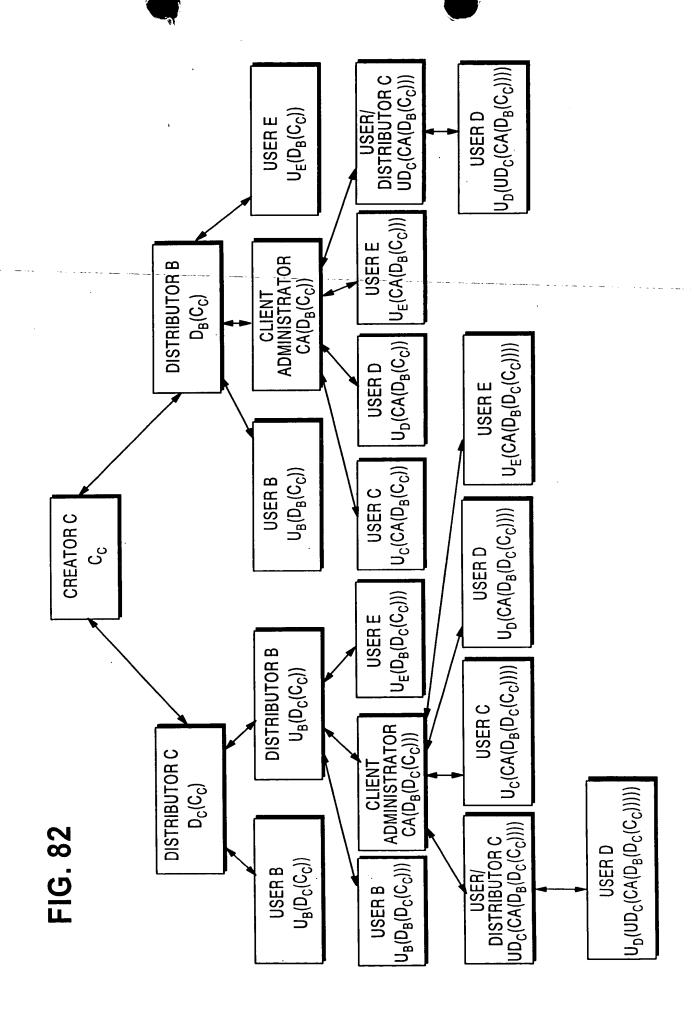












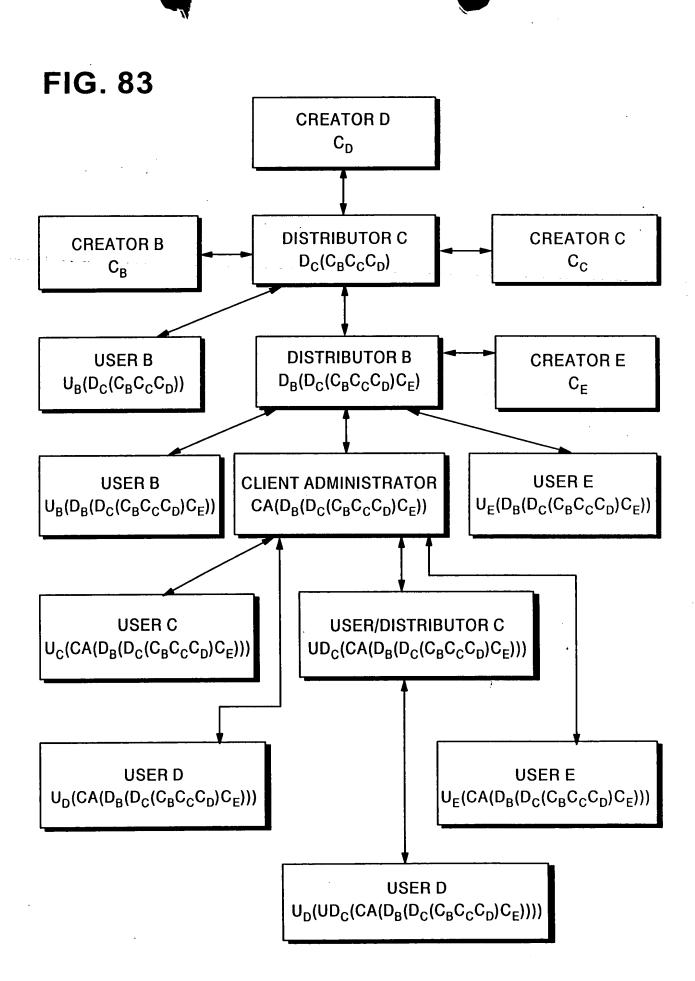


FIG. 84

